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THE AMERICAN PRACTITIONER.

FEBRUARY, 1879.

Certainly it is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

ORIGINAL LECTURE.*

A CLINICAL LECTURE ON ANESTHETIC LEPROSY.

BY JAMES NEVINS HYDE.

Gentlemen: The patient before us gives the following history of his case: His name is Augustus Brusher. He is forty-two years old, unmarried, by occupation a sailor, and was born in Oswego, New York. His parents were healthy; his father was of French and his mother of Dutch descent. He has two brothers, and a sister who is the mother of four children: all these relatives are in good health. When sixteen years old, he ran away from home and made a two-years' whaling voyage in the Okhotsk sea. During this cruise he spent, in all, some fourteen or fifteen weeks at Honolulu, in the Sandwich Islands. On his next cruise he deserted his ship when at Honolulu, and was there seven months before shipping on another whaler. His next cruise lasted three years; and during this time he spent, in all, five months at Honolulu.

* Delivered at the Dermatological and Venereal Clinic, Rush Medical College, Chicago, December 12, 1878.

Returning to this country in 1861, he enlisted in the Fourth Regiment of New Hampshire Volunteers, but was transferred to the United States Navy in 1862, serving first on the "Minnesota," and afterward on the "Queen," during the late civil war. In 1863, he was sent to the Asiatic squadron on board the United States ship "Iroquois," and touched at Shanghae, Hong Kong, Yokohama, and other eastern ports; but in none of these was he ashore for more than two days at any one time. His next cruise was made on board the United States ship "Tuscarora" in 1864, the vessel conveying an official commission to the West Indies. But little time was spent by him in any West Indian port. Since the year 1864 he has been cruising on the eastern coast line of the United States.

During all these voyages, he admits that he has indulged without restraint in the diversions of the average sailor. He has drunk liquor freely, and, in all ports where he has been ashore, has engaged in sexual intercourse. During his long periods of residence in Honolulu, he continually gratified his sexual desires with native women. Throughout all, however, he assures us, in the most positive manner, that he has had but a single venereal accident, and that was, six years ago, a urethral discharge which lasted but three days. It was relieved without consulting the ship's surgeon. He has never had genital sores, ulcers in the throat, loss of hair on the scalp, lumps in the groin, pain in the bones, nor, prior to his present illness, any eruption upon the skin. He has never had scurvy. Twenty years ago he suffered from a slight attack of chills and fever, and later from a mild rheumatic affection, unaccompanied by fever, affecting chiefly the back and shoulders.

The patient assures us that, with the exception of the disorders we have named, he had always enjoyed perfect health till the year 1874. Then his troubles began with a painful pricking, itching and tingling sensation in the soles of the feet, succeeded by a gradually increasing feeling of numbness, "as though the feet were asleep." Locomotion soon became painful; he felt as though he were "walking on a stone-

bruise." Later, the painful pricking and tingling sensation was perceived in the palms of his hands, which also soon became numb. Suddenly a "blister," as large as a pigeon's egg, appeared on the internal face of the left index finger, over the second phalanx, fully distended with fluid, and unaccompanied by pain. This he pricked with a pin, and thus gave exit to a "bluish-stained" fluid, which streamed from the finger. Immediately a deep black scab formed over the part, which soon dropped off, and disclosed a correspondingly deep ulcer. This healed without delay. In its near vicinity a second "blister" speedily formed, similar in size and contents, colored externally like the skin. Its course was the same as that of the bleb which preceded. It gave exit to the same fluid contents, and was followed by similar scab, ulcer and scar. A third "blister" formed over the right first metacarpal bone, similar to the others except as regards its size. It was larger than they—as large as a turkey's egg; and its resulting ulcer, beneath a coal-black scab, penetrated nearly to the bone. Other bullæ succeeded, one over the right ulna near the wrist; another, somewhat higher up, on the ulnar side of the forearm. The latter had a "scab nearly half an inch in thickness, and its sore touched the bone." Others followed on the ulnar side of both forearms; and, after the appearance of the last of these, others yet, of similar aspect and career, upon the peroneal side of the left leg, just below the external malleolus. He says that, altogether, he has had "hundreds" of these lesions on his extremities, none of them occasioning any pain.

The patient tells us that his visual power is weakened, but that his senses of smelling, tasting and hearing are unimpaired. His alvine dejections are usually normal, though at present he is suffering from slight looseness of the bowels. His urine is normal in color, and passed without pain. At night, he is often disturbed by restlessness. As to his sexual powers, he informs us that he is "not nearly the man he was." His erections are transitory and imperfect; his seminal discharges scanty and infrequent, and his desires to a great

extent weakened. Since the beginning of his troubles, his weight has gradually diminished from one hundred and seventy-five to one hundred and thirty-five pounds. He narrates to us this history with the intelligence and clearness of an unimpaired mind.

Let us now examine him physically. You all see that he is a man of average development, spare in flesh, though not emaciated. His gait, as he moves from side to side of the amphitheater, is a painful limp. The gray hair on his scalp is abundant; his eyes, of a grayish-brown color, are coördinate in their movements; his sparse and short-cut beard is also gray; his facial expression is apathetic. The general tint of his skin is a yellowish bronze. There is slight diffuse redness of his unwrinkled forehead, where he complains that he notices occasionally a pricking and itching sensation. Pinched up between the thumb and finger, this portion of the integument seems to be irregularly thickened; but we can detect here no tubercular masses. The brows are perceptibly full and prominent, and quite destitute of hair. The eyelashes have disappeared from both upper and under lids of each side, but a few filaments can be discerned as the remnants of the upper eyelashes. The globes of the eyes, the ears, lips and alæ nasi are normal. The buccal mucous surfaces are pallid, but free from lesions. The teeth of the upper jaw are generally destroyed by caries, as is evident from the stumps remaining: those of the lower jaw project from retracted gums, the exposed surfaces being smeared over with a whitish mucoid secretion. Upon each of his extremities, figures of various devices have been produced by tattooing the skin with India ink. He assures us that he never suffered from sores or other untoward symptoms in the site of the punctured wounds inflicted during the process of tattooing.

Over the distal extremity of the right fifth metacarpal bone, in the palm, is a moderately distended, pearl-tinted, semiglobular bleb, resting on a base two centimeters in diameter. At its line of contact with the skin, it is girdled with a delicate vascular zone, light purple in hue, about one millimeter

in width, encroaching equally upon the wall of the bulla and the integument. Its roof is evidently constituted of the entire thickness of the epidermis. Pricked with a lancet, an opalescent fluid slowly exudes from beneath in quantity sufficient to drip from between the fingers, the elevated epidermis meantime returning to the reddened floor of the lesion. It has formed, he tells us, within the last twenty-four hours, and is the sole lesion of its kind now visible upon his person.

Over the inner face of the third phalanx of the left index finger, are two ill-defined cicatrices, with a dense, split-pea sized, whitish center, surrounded by loosely agglomerated scales, resting upon a slightly hyperemic surface. The interossei muscles are wasted. On the ulnar surface of the left forearm, are four roundish atrophic patches, averaging five centimeters in diameter; and on the corresponding surface of the right forearm are three others of similar aspect: the largest of all being here visible, and measuring exactly in two diameters seven and four centimeters. The general appearance of these atrophic disks may be described as follows:

The center of each, without exception, is a dense white flattened spindle-shaped mass, three to six millimeters in width and one to two centimeters in length, not elevated above the general surface, but perceptibly differing from the rest of the cicatriform tissue by its resistance to the pressure of the finger. From this center extends peripherally, in every direction, an indistinctly radiated, smooth, dry, glazed and glistening surface, readily wrinkled by the touch, of mica-like tint, differing thus from the dead white central mass. Bronze-colored streaks can be seen in some of these patches. The contour of each is clearly defined by the adjacent integument, often in a delicately crenated line. This line of demarcation usually affects the arc of a circle: in one instance only however, (just below the left elbow), can this be described as completely circular. In several cases the periphery is that of an obovate leaf, the resemblance to which is further suggested by the white flattened spindle-shaped center, whose diameter in general corresponds to the longest measure of each lesion. When

two of the latter are conjoined, the appearance is that of a section of a dumb-bell with irregularly outlined extremities. Center and periphery alike are totally insensitive to deep thrusts of the lancet. The integument surrounding these lesions is markedly pigmented in excess, to the extent of several millimeters; the hue is a light chocolate, fading gradually off into the general tawny and bronzed tint of the skin. Partial anesthesia exists also in the surrounding integument. The cicatriform lesions are no where attached to the deeper structures, can be readily gathered up with the fingers, and, when thus handled, are thrown into wrinkles, the whole feeling like the tissue of a dried bladder. None is surrounded with an erythematous, congested, vascular or lilac-tinted border; nor upon any is there a trace of scales, or pilary, sudoriparous or sebaceous elements. The patient thinks that the area of these has not extended beyond the limits defined by the original bulla in each instance. The underlying muscles are manifestly atrophied, their motor activity seeming to remain unimpaired.

The palms of the hands, in contrast with the dorsal surfaces, are of an unnatural dead white hue; and suggest the similar contrast in the hands of the negro. The right hypothenar eminence displays an atrophic patch similar to those seen over the forearms. The smooth, long, claw-like and longitudinally-arched nails are colorless as the palms, and turned toward them. The visible wall of the vallecula is noticeably flattened and deprived of its limitary features. The distal phalanges are slightly flexed. He tells us he has himself wondered at those changes. All parts of the fingers and hands are insensitive to the prick of the lancet, with the exception of a few isolated palmar points.

The surface of the trunk is indistinctly and irregularly dyschromic. Beneath the sternal extremity of the left clavicle is a whitish patch, fairly well defined, two centimeters in diameter, with circular, faintly determined outline, beyond which is deeper annular pigmentation, of light chocolate tint, two millimeters wide. Similar, less defined and much larger patches

are visible on the anterior face of the belly and back. Here there is a slight disposition toward symmetry, the deeper pigmentation affecting the flanks and nates; the lighter, the regions of the linea alba and dorsal spines. The penis and scrotum are unusually lax and flaccid. The prick of the lancet is generally perceived by the patient over the trunk; but he yet complains that in all parts of his body, his skin feels "unnatural." There are no cicatriform lesions upon the trunk, nor evidences of cutaneous infiltration. There is simply general dyschromia: to the touch it feels, in all parts, like a dry, faultily nourished skin.

The thighs exhibit, much more distinctly, the phenomena noted above on the trunk. Upon the antero-lateral and posterior faces of each are dead white patches, varying in size from that of a small saucer to a dinner plate. They are uniformly of a dead yellowish-white tint, never exhibiting the milky whiteness of the so-called "piebald skin." They have clearly defined borders in irregular curves, limited beyond by dark color lines of mixed chocolate and bronze, which gradually fade away into the average color of the skin previously described. All the femoral patches are totally anesthetic; but the anesthesia is not strictly limited to these, as it is evident that sensation is abolished or diminished in the outlying integument. Thus, you observe, that a distance of four centimeters from the edge of a patch above the outer condyle of the right femur, the prick of the lancet is not felt.

Along the peroneal surface of the left leg are eight crusted lesions. The smallest of these is circular and of nummular size; the largest, upon the lower third of the leg, is elliptical in contour, and measures ten by six and a half centimeters. Each is covered by a dead black, externally roughened, firmly adherent crust, of moderate uniform thickness, in no instance laminated, or presenting other rupioid features. From beneath the largest, when it is torn from its attachment, oozes a reddish sero-pus. The oval ulcer thus exposed does not rest upon an indurated base. Its edges are sloping, neither clean-cut nor undermined. Its floor is a reddish pulp, which can

be scraped away, without producing pain, to the depth of the subjacent fascia. There is here no trace of granulation, hyperemia, capillary hemorrhage, or active inflammatory process. I plunge the lancet to the depth of half an inch in several points of the adjacent integument, and the patient is not aware of the act. From one or two of the deeper wounds, a few drops of blood escape. The anesthesia is told in both feet and legs to the level of the tibial tubercles. Beneath the left external malleolus is a cicatriform lesion, similar to those seen upon the arms. Here, he tells us, as also in the site of crusted ulcers, were once "blisters."

The sole lesion upon the right foot rests above the external plantar edge, over the epiphysis of the os calcis. It looks like a roughened, black, fissured tubercle, of the size of a walnut. Inspected closely, however, it is seen to be similar in character to the crusted lesions of the other leg, differing only in consequence of the dense horny epidermis, where the dried scab has formed.

The plantar surfaces are of the same dead white hue as the palms; and the nails of the toes have undergone the exact changes noted in the fingers—only the right big toe shows by transparency a trace of the vascular tint beneath. In both legs, atrophy of the muscular tissue is most evident on the peroneal surfaces. The general color is here the darkest of that seen anywhere over the surface; it is a deep bronze, deepest on the dorsum of the feet. The integument, when handled, feels much like a piece of dried fish skin. We learn that some edema of these parts has been relieved by rest and elevation of the limbs. The general aspect of the left leg suggests the limb of a tree, with roughened, partially-burnt bark irregularly displayed upon its surface.

The ulnar nerve of each side feels to the touch like an indurated, thickened cord. We are unable elsewhere to recognize a similar lesion. There is adenopathy of the inguinal regions only—the glands of each groin being enlarged to the size of a pigeon's egg, dense, elastic to the touch, and painless.

There is but one disease, gentlemen, which displays the assemblage of symptoms we have just observed, and that is leprosy—the LEPRA of our new nomenclature: the *elephantiasis Græcorum* of the old. It is here presented to our observation in its strictly anesthetic form. The symptoms of the three varieties of this new growth of granulation tissue—the tubercular, macular and anesthetic—are often commingled. Each group may precede or follow each other, and thus constitute a mere stage in the development of the constitutional disease. It is rare to observe a patient whose symptoms, as in the present instance, may be so exclusively classed under the anesthetic title.

I need not add that the disease, in any form, is rarely encountered here. All told, there are probably not more than one hundred lepers in the United States. They have been reported in South Carolina, Louisiana, Maryland, New York, California, Minnesota, Illinois; and probably are to be seen in other states of the Union. This is the fifth patient affected with the disease, of which I can find a history in Chicago. Two, exhibiting tubercular symptoms, have been reported to me by Dr. Paoli, observed in his practice among the Scandinavians of this city. A third, also of the tubercular variety, was, a few years ago, an inmate of the County Hospital. The fourth leprous patient was exhibited to the Chicago Medical Society by Dr. Holmboe, Surgeon to the General Hospital at Bergen in Norway, who made, in 1863, a tour throughout the Northwestern States, for the purpose of investigating the prevalence of the disease among the Norwegian immigrants.*

As it is thus rare, we must be especially careful to make no error in diagnosis. If we review, to this end, the sum of the objective features just considered, we will be at once struck with the polymorphism of the disease. Here we have coincidence of ciliary and superciliary alopecia, a single bulla, slight frontal erythema, atrophic patches ranged along the tracts of certain nerves, plates of pigment anomaly, crusted ulcers, adenopathy, anesthesia, muscular atrophy and obscure

* See the British and Foreign Medico-Chirurgical Review, January, 1870.

nutritional changes in the skin and nails. What a rare and heterogeneous collection of symptoms! It reads like the miscellaneous catalogue of a dealer in *bric-à-brac.*

But polymorphism, or multiformity—the words are alike in etymology and meaning—is true also of other diseases, notably of syphilis and scabies. As syphilis, in many of its phenomena, bears some resemblance to leprosy, let us ask whether, in the particulars mentioned, we can establish a differential diagnosis.

Syphilitic alopecia affects the hairy scalp; rarely, if ever, the brows and lids exclusively. Notice the abundant growth of hair upon the scalp of our patient. Pemphigoid lesions are common in syphilitic infants, but extremely rare both in the congenital and acquired disease of adults. They were named by Alibert, "pemphigoid pustular syphilides;" and have been observed, once only, by Ricord, on the soles of the feet; once only by Bassereau, on the palms of the hands; once only by Morgan, in a woman twenty-six years of age; never by Zeissl in twenty years' experience.* They have purulent contents, an indurated base and a copper-tinted zone; are indolent, painful, and usually occur in groups, never in an order of succession. How different, before its collapse, was this pearly bleb, rising abruptly from the integument, its base outlined by the delicate purple girdle we observed!

Syphilitic "roseola" is rarely attended with sensations of pricking and tingling; moreover, it is seen on the trunk as well as the face, and occurs among the earliest of syphilitic symptoms. The erythema you see here is associated with subjective sensations, and is a diffuse redness, limited to the lower portion of the forehead. Moreover, in the case of our patient, we have no reason to suspect recent infection. Syphilitic pigmentary anomalies occur, either about certain typical and more important lesions, or, when isolated, are seen chiefly over the neck and shoulders of women. In this situation they form an irregular network, none of whose meshes are as

* Parrot. Clinical Lectures on the Bullous Syphilide. *Le Progrès Méd.*, 1878, Nos. 1 and 4.

large as a dinner-plate, of a yellow and gray hue, and are never anesthetic. The cicatrices of syphilis are often, indeed, smooth, white, slightly depressed and glistening, with a circular border; but they never show the dense, white, central band you see here, are never anesthetic, are never ranged along nervous tracts, and are usually asymmetrical; while, here, the implication of each ulnar nerve (in the manner I shall presently describe), has produced a certain degree of symmetry. Syphilitic ulcers are often circular and indurated, and have clean-cut edges, undermined walls, and a grayish pultaceous floor. But here, on the contrary, is an entire absence of induration at the base, an irregularly oval outline, sloping edges, and a floor covered with a reddish insensitive pulp. The scabs of late syphilis are frequently greenish-black in color, but they are usually laminated and conoidal in shape; while the crusts before us resemble rather the bark of a tree than an oyster-shell. The eccentric phenomena of nervous syphilis are in general associated with paralyses of curiously-selected nerves. Here, there is paralysis of sensation only—an anesthesia which is so generalized that it gives to the disease a characteristic physiognomy. In syphilitic onychia, the matrix of the nail is usually involved; while the changes you observe in this case are confined to the body of the nail itself. In short, it is clear that we might search the literature of syphilis in vain for any picture such as that here presented to us.

Again, the decolorized patches upon the trunk and thighs of our patient might be mistaken for either vitiligo or morphœa. But the patches in vitiligo are never of the dead, yellowish-white color you observe here; they are rather milky-white, and are, moreover, never anesthetic. Except in the mere matter of pigment atrophy, they differ in no respect from the normal skin; and there is no constitutional impairment. Vitiligo is a rare affection of the skin; but a few weeks ago I had the opportunity of carefully examining, with Dr. D. A. K. Steele, a gentleman exhibiting this anomaly, and the contrast between the two patients, in the hue of the decolorized

patches, is vivid to my eyes. Mr. Hutchinson, of London,* has described some seven or eight points of difference between these leprous lesions and vitiligo; but the observation of our patient would only justify us in accepting the distinction between the two, based upon color and sensation. Morphœa is still more readily differentiated, for its patches, though white in color, are distinctly lardaceous; there is textural change in the corium, and always a peripheric ring of a lilac or violet color, due to vascularity. There is, beside, no anesthesia, nor constitutional impairment.

Distinguishing, furthermore, this anesthetic from the tubercular form of the disease, we note the entire absence of the disfiguring tubercles and infiltrated masses, which, clustering around the brows, nose, lips and ears, produce the deformity that, at an earlier day, gave to the malady one of its many names, leontiasis. These lesions are, however, found in other parts of the body than the face—even in cases upon the mucous surfaces. We note, further, the absence of those erythematous and circumscribed areas of infiltration, looking like pieces of raw bacon let in to the skin, which are described by most writers in connection with the macular variety of leprosy. In most of the photographs which I now show you, taken of leprous patients in the Sandwich Islands and the East Indies, you will notice, beside the lesions we have described, infiltration of the skin in large districts, and such ultimate results as the loss of fingers and toes, devastating ulcers of enormous size, ectropion, destruction of the ocular globes, and a malignant constitutional vice, which renders it difficult to recognize in these hideous objects the vestiges of healthy human life.

The pathology of anesthetic leprosy is well illustrated in the drawings I show you, copied from the plates of Virchow. Here are a series of nerve-fibers, exhibiting all stages of involvement, from the normal condition to the gradual deposition, within the nerve fasciculi and in the interstitial substance, of closely agglomerated cells—the "hyalin-fibroid" of

* Lectures on Clinical Surgery, London, 1878, p. 33.

Carter.* Here they have squeezed and compressed the fibers to such an extent, that we can thus well explain the hyperesthetic symptoms. Here, again, they have produced complete atrophy, and the nervous elements are represented by slender and wasted filaments, leaving the areas formerly supplied by each nerve completely insensitive. Remembering the association between several forms of herpes zoster and neuritis, we can well understand how, at the outset of these grave neural changes in anesthetic leprosy, successive crops of enormous bullæ should appear, rapidly pursue their course, and leave an integument behind where the ordinary processes of repair seem singularly perverted. In tubercular leprosy, a small-cell brood of degenerate connective tissue corpuscles pervades the epidermis in a similar manner, the process advancing in the vicinity of the glandular and vascular elements. It is the breaking down of this tissue which ultimately results in ulceration, necrosis and deformity.

The etiology of leprosy is certainly unknown. I shall not waste your time by rehearsing, in this connection, the theories of writers who have looked for the causes of the disease to the air, the water, the soil, the fish and other articles of diet, and even, as lately Dr. W. Munro of Manchester,† to the absence of salt in the food. But here is a man who has been inhaling the saltest of salt air for nearly a quarter of a century, and consuming for the same time the salted food of the sailor, who yet secured thus no immunity. Neither have I the patience to discuss the doctrine that syphilis is the cause of leprosy—a doctrine chiefly supported by physicians in the Sandwich Islands. I can not doubt that hundreds of lepers at Molokai have displayed the symptoms of the two diseases, since we are told that this is the case; but if the phenomena we have just observed are the distinctive features of syphilis, then indeed we must admit that our every-day experience has

*Paper read before the Royal Medical and Chirurgical Society of London, March 25, 1873.

†Series on the Etiology and History of Leprosy. Edinburgh Medical Journal, Vols. XXIII and XXIV, 1878.

failed to teach us aright, and the masters of our science have been led astray.

Evidence as to the contagiousness of leprosy is equally unsatisfactory. The fact that healthy wives with leprous husbands, and healthy husbands with leprous wives, have cohabited for years, and produced children without transmission of the disease, is a strong argument against its contagiousness, especially so in view of the fact that wife and child so often pay the penalty for the sins of a syphilitic father. I believe that the English version of the Hebrew scriptures has greatly contributed to the general impression regarding the contagiousness of leprosy. Even so eminent an authority as Mr. Erasmus Wilson, in his rendering of the thirteenth chapter of Leviticus, has substituted the word "contagious" for the word "unclean." But the thirteenth chapter of Leviticus is not an essay on the diagnosis of leprosy. It is a compilation of arbitrary rules for the guidance of the priest in admitting or excluding Israelites who approached the sacred tent in the center of their camp. All question of inspiration aside, the Hebrew scriptures were not designed to be a guide in astronomy or medicine, but as a code of religious ethics. The "uncleanness" of the Israelite was a *ceremonial* uncleanness, removable by the offering of certain sacrifices. It appertained not only to the leper, but also to the men affected with psoriasis, scabies, and other skin affections, whose prevalence in the camp is evident in the record left us. It appertained also to the menstruating woman, the man who had recently had a seminal emission, and the dead body. In these sacred writings of the Hebrews, we have even presented to us the picture of the "leper" Gehazi in the court of a prince of Israel; and a Syrian king entering the temple of his god, while leaning on the arm of his "leprous" general-in-chief. Mr. Wilson would scarcely call a "common boil" contagious, and yet this is enumerated also in the list of "unclean" diseases.

It is probable that leprosy is transmissible by heredity, though it by no means follows that the children of leprous parents will become the victims of the disease. The patient

before us has stated that his father was "healthy," but he told me in private that, before the death of this parent, "one of his toes dropped off." This certainly required further investigation, and I therefore consulted Prof. J. Adams Allen, who, as I learned, attended the father of our patient in his last illness. Prof. Allen informs me that the latter was a hale and hearty old man, who died of senile gangrene in his eightieth year: he had no other symptoms of disease. The toe became exceedingly painful; and when gangrene finally supervened, a distinct line of demarcation formed about the part. These are not the features of leprous disease, nor, if they were, would they possess any significance in the case of a man who had enjoyed robust health for eighty years of his life. We have no evidences, therefore, of hereditary transmission of the disease to the patient we now have before us.

(The leper was then removed from the room at the request of the lecturer.)

In considering the question of prognosis, it occurs to me that the patient who has just left us is but in the infancy of his disease. If it be true, as we are told, that the average duration of the anesthetic form is from fourteen to twenty years, he must then have survived but one-fourth or one-fifth of his pathological term. I am the more inclined to this opinion, because we have seen that he is yet in the period of efflorescence of the malady, if we may use such a term in this connection. We found a single bleb upon his hand, but this will very probably be succeeded by others, each to be followed by that singular and interesting sequence of events we have just been studying.*

Per contra: I may say that it is probable our patient would have been in a far worse condition if he had been continuously exposed to the influences in the midst of which we may suppose his disease was engendered. Doubtless, during his long

* In an examination of this patient, made two days after the date of this lecture, I discovered two new filbert-sized bullæ on the palm of the right hand, in all respects resembling that described above. One pea-sized bleb had also developed on the lateral surface of the middle finger, but was of a reddish-purple color, and contained a reddish serum.

periods of residence in Honolulu, he was subjected to those unknown causes which have there made leprosy endemic. It is true that isolated cases of indigenous disease have been reported in this country; but in the present instance the antecedents of the patient seem to justify us in assuming that the remote causes of the malady operated during a foreign residence. For many years, however, the patient has been living in his native land. Professors Boeck and Holmboe, who studied the disease in this latitude, believed that the Scandinavian lepers in the Northwest, if not benefited by immigration to our shores, would at least have been in a worse condition had they remained at home. Such also is the opinion of my friend, Dr. Grönvold, of Minnesota, who has kindly furnished me with notes of his leprous patients in that state. So far as I am aware, no leper in the United States has ever transmitted by heredity his disease to his offspring.

From every other point of view, the prognosis in the case of our patient is sufficiently unfavorable. He will almost certainly, at some time in the future, lose several phalanges of the feet or hands, or suffer from one of those deep and painful plantar lesions, which lay bare a tarsal bone, and gradually convert the foot into an inert mass of putrid shreds. The grave final result is usually from exhaustion.

With such a prognosis, you will not be prepared to hear that treatment can accomplish much. Needless to say that mercury, iodine, quinia, arsenic, and a long list of other remedies, have utterly failed to eradicate the disease. A careful study of the results said to have been obtained by the use of Gurjun oil, employed in the Beauperthuy method by Dougall,* and of the oil of cashew-nut by De Valencé,† will lead to the conviction that the benefit was largely due to the improved hygienic condition of the patients submitted to experiment. Where we are ignorant, it is best to admit the fact; for we thus show that we have at least learned the alphabet of wisdom.

* Medical Times and Gazette, June 20, 1874.

† Paper by Dr. Gavin Milroy, Medical Times and Gazette, May 30, 1874.

The best treatment for the leper is that which is founded upon the laws of hygiene and general therapeutics. Good air, nutritious food, bathing, a selection of suitable climate, tonics, measures for the relief of pain or other untoward symptoms, and antiseptics when indicated, constitute the sum total of our resources. We may well doubt, in view of the profound alterations in the nervous trunks, whether an agent will ever be found capable of repairing such extensive damage.

I can not conclude without expressing my conviction, that there is a pressing need, not only in Chicago but in many other of our larger cities, of a Hospital for Incurables. In some such asylum, properly managed, our patient might pass at least a portion of his future life in comparative comfort.

CHICAGO, ILL.

A CONSIDERATION OF THE ALLEGED ANTAGONISM OF OPIUM AND BELLADONNA.*

BY W. B. DAVIS, M. A., M. D.

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Occasional references are found in medical literature, as far back as 1570, to opium and belladonna, being counter poisons in their influence on the system. The belief in their antagonism arose largely from their action on the eye. It was known that opium would contract the pupil, and belladonna would dilate it; and from this it was inferred that their antagonism might extend to other parts of the system. The records of their use as mutual antagonists are meager and imperfect, and it was not until 1854 that we have any reliable data given us. Then Dr. Thomas Anderson, of Scotland, reported his observations of the action of belladonna in two cases of opium poisoning. Four years later Dr. Benjamin Bell, of Edinburgh,

* A paper read before the Cincinnati Medical Society, January 21, 1879.

reported "beneficial results," in a case of belladonna poisoning, from the hypodermic use of a solution of morphia. These cases, however, scarcely caused a ripple in the profession; and it was not until the year 1862, when Dr. William F. Norris, of Philadelphia, published his paper describing nine cases of opium poisoning, treated with belladonna, and eighteen cases of belladonna poisoning treated with opium, that any general interest was manifested in the subject. Since then many cases have been reported, where it is alleged that one or the other of these drugs has been successfully used as a counter poison, and the profession has about accepted this accumulated evidence as conclusive of their mutual antagonism.

There were those, however, who believed that the evidence adduced was not sufficient to justify such a conclusion, and, in justification of their skepticism, called attention to the well known facts, namely, that very large doses of belladonna are tolerated by children; that in many cases where poisonous symptoms have shown themselves in adults, from opium as well as belladonna, recovery has occurred without any special medication; that in many cases of poisoning where these agents have been used as antagonists, other treatment had also been resorted to; that failures as well as successes had been reported, etc.

Of late years the advance made in the knowledge of the physiological action of medicines, has thrown a great deal of light upon the action of these two agents in the system, and made clear to us *wherein* and *how far* they antagonize each other, and *wherein* they *agree* and *intensify* the action of each other. Let us consider for a moment the physiological action of these drugs.

Physiological Action of Opium.—The primary effect of a small dose of opium is stimulant; in large doses it depresses the heart's action, renders the circulation slow and full, and dilates the arterioles and veins. It retards respiration and renders it slow and feeble. It contracts the pupil, produces dryness of the throat, and proves narcotic, anodyne and anti-

spasmodic. In toxic doses, the above symptoms are intensified and the face becomes cyanosed, and there is profound coma. Death occurs in most cases from failure of the respiration, due, according to the observations of H. C. Wood, to a direct action of the poison upon the respiratory centers of the medulla. The morbid appearances after death are usually a livid hue of the surface, congestion of the brain and spinal column, with serious effusion and congestion of the lungs.

Physiological Action of Belladonna.—The primary effect of a small dose of belladonna is somewhat sedative to the circulation; in large doses its secondary effects follow in a few minutes, and are characterized by a marked acceleration of the circulation and respiration, increase of the temperature, rise of blood pressure, with contraction of the arterioles. The acceleration of the respiratory movements do not correspond with the increase of the heart's action. In toxic doses the above symptoms are intensified, and there is a state of "excitation." This, however, soon diminishes, the blood pressure falls, the circulation becomes weak, the capillaries dilate, and it acts as "a direct depressant poison on the heart and respiration, paralyzing this portion of the peripheral pneumogastric nerve, which is connected with the function of respiration." (H. C. Wood.) It dilates the pupil, produces dryness of the throat, and causes a restless, talkative delirium. Death is preceded by marked failure of the respiratory forces and the heart's action.

Let us now very briefly enumerate the points of antagonism, and the points of agreement, between these two agents.

Points of Antagonism.

1. Opium contracts, belladonna dilates the pupils.
2. Opium constipates, belladonna relaxes the bowels.
3. Opium* retards the circulation and respiration; belladonna, *in moderate doses*, accelerates them.

* Koenig, in Schmidt's Jahrbuch, says:—"Because a *small dose* of the one may be counteracted by the other, it is not proven that the effects of a fatal dose will also be rendered harmless."

L. of C.

4. Opium dilates the veins and arterioles; belladonna, *in moderate doses*, contracts them.

5. Opium induces profound sleep and coma, with low blood pressure; belladonna produces wakefulness and a talkative delirium, with high blood pressure, followed by convulsions and stupor.

Points of Agreement.

1. Both drugs produce dryness of the mouth and throat.

2. Both drugs, *in large doses*, retard the circulation and respiration, and dilate the arterioles.

3. Both drugs destroy life in the same way, namely, by a direct depressant action upon the respiratory centers and upon the heart.

If the above summary is a correct presentation of the physiological action of these drugs, we can see wherein and how far their use as counter poisons may be beneficial or injurious. Death occurs, in opium poisoning, from failure of the respiration; with a failing respiration, we have a languid circulation, a congestion of the veins and arterioles, and the blood saturated with carbonic acid. Belladonna, *in moderate doses*, will stimulate the respiration and circulation, and induce contraction of the veins and arterioles. *This is the limit of its usefulness in opium poisoning.* It simply keeps the vital machinery in motion — unless too large a quantity has been ingested — whilst nature eliminates the poison. The smallest amount which will increase the respiratory forces and stimulate the failing heart, should be used. Pushed too far, or given in too large an amount, it paralyzes the nerve trunk and increases the danger.

H. C. Wood says: — "A cardinal principle should, therefore, be to give no more of the mydriatic than is absolutely necessary. One-sixtieth to one-fortieth of a grain of atropia may be injected every fifteen, twenty or thirty minutes, as the urgency of the symptoms may demand. If the respirations had risen from four to eight per minute, I would not use the atropia again until there was a tendency for the respirations to grow less frequent."

Bartholow says:—"Not more than $\frac{1}{120}$ of a grain of atropia should be administered at a dose, and this may be repeated every fifteen minutes (up to three doses), until dilatation of the pupil, increased power of cardiac movements, deeper respiration, warmth and dryness of the skin, and flushing of the face, are produced. No more can be accomplished by the largest doses, and the results of the antagonism must be awaited."

Dr. John Harley says:—"One-ninety-sixth of a grain of atropia may be given, at intervals of two hours, to stimulate the failing power of the heart."

Dr. Johnson, of Shanghai, China, reports having treated three hundred cases of opium poisoning with atropia. In extreme cases "he injects half a grain of atropia. . . . It within two hours the dose fail to produce the desired effect, he repeats the injection."

Fothergill, in his "Antagonism of Therapeutic Agents," says, in opium poisoning, after emptying the stomach, "inject a fourth or a third of a grain of atropia before the respiration is gravely affected; then put the patient to bed, and carefully note the respiration, the pulse, and the temperature. If the respiration was still falling half an hour after the administration of the atropia, to inject another third of a grain, and still take careful notes; and give a third of a grain, or even more, if the respiration still fell. . . . With some patients it takes one-twenty-fifth of a grain of atropia to produce the effect readily attained with one-seventy-fifth of a grain in others. This susceptibility to a tolerance of belladonna must ever remain a disturbing factor in the treatment of every case of opium poisoning. . . . If the patient were at the point of death, the most timid need not fear to give a half a grain of atropia at once, and follow it by a second, if at the end of an hour marked improvement had not set in. . . . Every case of opium poisoning for the future should be regarded as an experiment to be carefully observed."

Fothergill and Johnson, in their heroic doses, do not seem o think there is any possibility of substituting belladonna for

opium poisoning, nor of intensifying the chief danger in opium poisoning, viz., depression of the respiratory forces. Fothergill quotes very freely from H. C. Wood, but does not observe his caution in the use of atropia. I think that it will be safer to follow the dosage and the precautions of Harley and our American authorities, than those of this eminent English writer.

Death occurs, in belladonna poisoning, from failure of the heart's action and of the respiratory forces. As opium acts in the same way in destroying life, we can not see any ground upon which its use in belladonna poisoning can be justified.

J. Hughes Bennett's experiments upon animals corroborate this position. In his "Report on the Antagonisms of Medicines," he gives a table showing the influence of morphia on large doses of sulphate of atropia in rabbits. The morphia was given from two to five minutes after the atropia. The number of rabbits experimented upon, *ten;* number of deaths, *eight.* He says:—"It does not appear, from this table, that morphia favors recovery after a large dose of sulphate of atropia. In several cases, the time of death seemed to be rather hastened than delayed. . . . In man, sulphate of atropia would be too dangerous and uncertain a remedy to depend on in cases of poisoning by opium."

Koenig (Schmidt's Jahrbuch, No. 149) reports a series of experiments on rabbits with opium and belladonna, and concludes from them that "morphia can not be regarded as antidotal to toxic doses of atropia."

John Harley, in "Old Vegetable Neurotics," says:—"Belladonna can not, in any sense, be regarded as an antidote against opium, but in large doses the exact reverse."

The conclusions of J. Hughes Bennett's report to the British Medical Association, concerning the antagonism of opium and belladonna, were as follows:

1. Sulphate of atropia is physiologically antagonistic to meconate of morphia within a limited area.

2. Meconate of morphia does not act beneficially after a large dose of sulphate of atropia; for in those cases the ten-

dency to death is greater than if a large dose of either substance had been given alone.

3. Meconate of morphia is not specifically antagonistic to the action of sulphate of atropia on the vaso-inhibitory nerves of the heart.

4. The beneficial action of sulphate of atropia, after the administration of large doses of meconate of morphia, is probably due to the action sulphate of atropia exercises on the blood-vessels. It causes contraction of these, and thus reduces the risk of death from cerebral or spinal congestion, as is known to occur after the introduction of fatal doses of meconate of morphia. It may also assist, up to a certain point, not precisely fixed in these experiments, by stimulating the action of the heart through the sympathetic, and obviating the tendency to death from deficient respiration observed after large doses of morphia.

Among the authorities consulted in the preparation of this paper, the following do not regard opium and belladonna as mutually antagonistic, but hold that belladonna is or may be beneficial to a limited degree in opium poisoning, but only so far as it stimulates the heart's action and the respiratory forces:

George B. Wood, M. D., Therapeutics and Pharmacology.
H. C. Wood, M. D., Therapeutics and Materia Medica.
John Harley, M. D., Old Vegetable Neurotics.
J. Hughes Bennett, M. D., Antagonism of Medicines.
Roberts Bartholow, M. D., Materia Medica and Therapeutics.
Sidney Ringer, M. D., Handbook of Therapeutics.
E. J. Waring, M. D., Practical Therapeutics.
Ignatz Jac Koenig, M. D., Schmidt's Jahrbuch.
Brown Séquard, M. D.

The following authorities hold that opium and belladonna are mutually antagonistic:

Alfred Stillé, M. D., Therapeutics and Materia Medica.
W. F. Norris, M. D., Amer. Jour. of Med. Sciences, 1862.
J. M. Fothergill, M. D., Antagonism of Therapeutic Agents.
C. Binz, M. D., Elements of Therapeutics.
Dr. Johnson, of Shanghai, China.

CINCINNATI, OHIO.

A CASE OF RHEUMATISM.*

COMPLICATED BY ENDOPERICARDITIS, DOUBLE PNEUMONIA, PERITONITIS, AND TYPHOID SYMPTOMS—RECOVERY.

BY WILLIAM CARSON, M. D.

Charles Moore, in the service of Dr. William Carson, was admitted March 6, 1878; aged seventeen years, single, clerk, born in the city.

Family history.—His father and mother both died of phthisis; has always been healthy until last winter, when he commenced coughing, and he states he has been coughing more or less ever since. Five days ago (about the first of March) he commenced to suffer from pain in his head, and soreness of the limbs. His ankles were swollen and tender. He also complained of intense pain in the abdomen and chest, accompanied by dyspnea and a smothering feeling in his chest; expectorated a glairy, tenacious mucus. He also complained of fever and intense thirst, previous to his admission into the house.

Present condition.—A fairly nourished boy, medium height, dark brown hair, brown eyes; appetite fair, tongue coated, bowels regular.

Physical examination.—Increased area of cardiac dullness; heart displaced toward the median line. On auscultation, a moist, creaking sound is heard with both sounds of the heart toward the base; an endocardial murmur with the first sound, is also heard at the apex. Ordered one-fourth of a grain of sulphate of morphia every three hours, with turpentine stupes to the abdomen, and ice to the precordial region.

March 7. Pulse 104, respiration 36, temperature 100.4°; abdomen tender and tympanitic, and breathing principally abdominal. Morphia continued.

March 8.—Morning, pulse 92, resp. 32, temp. 98°; eve-

* Recorded by E. Walker, Interne in the Cincinnati Hospital.

ning, pulse 96, resp. 48, temp. 99½°. Condition about the same.

March 9. Suffers considerably from dyspnea; abdomen rigid, tympanitic, and very tender to the touch; pulse 92, resp. 56, temp. 102°.

March 10. Morning, pulse 120, resp. 32, temp. 102°; evening, pulse 132, resp. 30, temp. 103°. Surface temperature, 98° on both sides of the face. Ordered twenty grains of sulphate of quinia every three hours, together with one-fourth of a grain of sulphate of morphia.

March 11. Morning, pulse 122, resp. 28; temp. 101½°; evening, pulse 106, resp. 32, temp. 102°. The area of cardiac pulsation extends from the second right intercostal space along the line of the sternum to the sixth intercostal space of right side. It also extends two inches externally to the nipple on the left side. On palpation, a thrill is felt; the abdomen is more relaxed than it was yesterday. Dullness on percussion all over the left lower lobe, anteriorly, posteriorly, and in the axillary line. At the base of the right lung there is also dullness on percussion, but not so extensive as in the left lower lobe. The percussion note at the right apex in front is more resonant, and less resistant than at the left apex. Bronchial breathing is heard at the base of both lungs posteriorly. At the apices, moist râles on inspiration; there is a well-marked systolic bruit in the second intercostal space of the left side.

March 12. Morning, pulse 102, resp. 36, temp. 102°; evening, pulse 104, resp. 39, temp. 102½°. The patient states that the pain in his abdomen is intense; has not had a stool for three days; ordered an injection of soap and water; had two stools soon after, and the pain seemed to be much lessened. Morphia still continued.

March 13. Morning, pulse 80, resp. 36, temp. 98½°; evening, pulse 84, resp. 40, temp. 99°. Abdominal pain not quite so great; abdomen still rigid and tympanitic.

March 14. Morning, pulse 81, resp. 37, temp. 98°; evening, pulse 87, resp. 41, temp. 101½°. Dullness less marked at the base of the left lung. Bronchial breathing more mark

ed at the base of the right lung than at the base of the left. Breathing much hastened by being turned over in bed for an examination.

March 15. Morning, pulse 96, resp. 40, temp. 100°; evening, pulse 99, resp. 43, temp. 101¼°. Pulse full; cardiac dullness not so great as yesterday; skin hot and dry; tongue coated with a thick, white, moist coating; papillæ are prominent and edges indented; some epistaxis; slight diarrhea.

March 16. Morning, pulse 100, resp. 47, temp. 99¼°; evening, pulse 112, resp. 48, temp. 100½°. Had seven stools last night, small in quantity, ochre-colored; epistaxis still continued; abdomen not quite so painful.

March 17. Morning, pulse 112, resp. 47, temp. 99½°; evening, pulse 110, resp. 31, temp. 100°. Diarrhea still continues; abdomen still painful; complains of coughing a great deal.

March 18. Morning, pulse 98, resp. 49, temp. 100°; evening, pulse 101, resp. 48, temp. 99½°. In the second intercostal space of the right side, the endocardial murmur can just be heard. The bruit at the apex with the systole is still distinct. A peculiar crepitant sound is heard at the apex of the heart; it is heard most distinctly on full inspiration, and sounds as if it were produced by the apex of the heart striking against a congested lung or a false membrane.

March 19. Morning, pulse 89, resp. 34, temp. 98¾°; evening, pulse 109, resp. 40, temp. 99°. Slept well, and says his pain is not so severe; had five stools last night.

March 20. Morning, pulse 102, resp. 36, temp. 98½°; evening, pulse 105, resp. 39, temp. 100°. Complains of pain across the chest below the nipple; had seven stools last night. Sudamina all over the chest. The action of the heart is intermittent. The pulse is dicrotic. Marked pain in the right iliac region, running up to a line drawn through the umbilicus. Ordered ice to the chest, ten drops of oil of turpentine every two hours, quinia still continued, and whisky. Bowels still loose, stools ochre colored, thin, but not watery.

March 21. Morning, resp. 38, temp. 98½°; evening, resp.

32, temp. 99¾°. Bowels are controlled; only had one stool last night, and that was moulded. The patient feels much better.

March 22. Morning, pulse 84, resp. 27, temp. 98¾°; evening, pulse 99, resp. 29, temp. 99½°. Pain in the side has gone; endocardial murmur less distinct; patient feels better than he has since he came into the house; tongue clean and smooth; bowels more regular; pulse no longer dicrotic, and heart's action regular.

March 23. Morning, pulse 81, resp. 34, temp. 98½°; evening, pulse 79, resp. 37, temp. 98½°. Patient complains of pain in the left side of his chest; had four stools, small in quantity and fluid, last night. Ordered turpentine stupe to the left side of the chest; pain soon relieved; whisky and quinia continued.

March 24. Morning, pulse 80, resp. 31, temp. normal; evening, pulse 83, resp. 29, temp. normal. Patient feels better; complains only of coughing; pain in the left side of the chest all gone; no endocardial murmur heard; pulse regular, no longer dicrotic.

March 25. Crepitant râle heard in the right axillary region; dullness has disappeared from the base of left lung; bronchial breathing still marked at the base of the right lung.

March 27. Morning, pulse 81, resp. 22, temp. normal; evening, pulse 82, resp. 24, temp. normal. Patient feels better; complains of nothing but bad cough; abdomen loose, and no pain in it.

March 29. Morning, pulse 82, resp. 21, temp. normal; evening, pulse 85, resp. 19, temp. normal. Slept well; sat up for a short time to day; bowels regular.

March 31. Morning, pulse 80, resp. 20, temp. normal; evening, pulse 81, resp. 21, temp. normal. Feels better in every respect; sleeps well; much stronger; expectorates tenacious mucus; bowels regular.

April 1. Feels stronger; endocardial murmur has disappeared; no dullness anywhere; no cough or pain; is rapidly convalescing; pulse, respiration and temperature normal.

April 3. Slight cough; bowels regular; no pain; pulse, respiration and temperature normal.

April 4. While not watched by the nurse he eat some pudding, which started his diarrhea again. Ordered bismuth and opium; pulse and respiration normal, temp. 100°.

April 7. Diarrhea checked; pulse, temperature and respiration normal.

April 10. Improving every day in every respect.

We have been prompted to report the above case, partly because of its recovery in the presence of formidable lesions, and also because of probable varieties of interpretation of its phenomena. We believe that the antipyretic and antiseptic influence of the large amount of quinia administered may be credited largely with the general control of the case. The morphia also seemed to have a good influence. The local application of ice at the precordial region was the means of giving great relief to the distress produced by the pericarditis.

That there were septic influences at work in the case will not be denied. The precise origin of them may be a disputed point. We have in our heading called it "septic endocarditis," because it would not imply what the recovery prevented the proof of—that it was "ulcerative endocarditis," the term which is usually applied by the latest construction of such cases, and a disease which is stated to be almost universally fatal. The term "septic" used here, is intended to imply a condition of "blood-poisoning," without the destructive processes of "ulcerative endocarditis." The case would come, however, under the head of the typhoid form of this latter, as it is described by our more recent writers.

Dr. Kirke, whose connection with the development of this subject is well known, says, in a comment on a case reported by him in the British Medical Journal, 1863, and which was the subject of serious thought and discussion by eminent physicians of London who saw it, that "the association in question is by no means generally recognized, and when a case of the kind occurs, it is apt to perplex and mislead even the most

practiced observers." We believe this statement has some force with reference to the practice of the present period also.

The pathological grouping in our case, up to the time when the pneumonia and the endopericarditis were the special features, is such as is known to be presented in a certain proportion of cases of acute rheumatism, and which is attributed to the general morbid cause in action. The time of appearance of the peritonitis, general typhoid depression and sordes on the teeth, the diarrhea with ochre-colored stools, and the epistaxis, was the time when possible septic products, of local origin in the inflamed endocardium and valves, extended the infection. This would be one view, and is the one commonly stated in articles on "ulcerative endocarditis." It points out two periods of distinct character in certain cases of rheumatic disease; the first comprising the course of the case, marked by ordinary articular affections, and more or less apparently inflammatory fever and endocarditis; and the second beginning with supposed infection of local origin in the inflamed heart, and running such a course as to obscure, if not entirely conceal, the primary features of the case. It is the difficulty of correctly interpreting such a case, when seen in its later stages, to which Kirke alludes.

Another view might be that the original cause, that which initiated the ordinary rheumatic symptoms, is sufficient for all the varieties which appear in direct connection with them. This view would imply that rheumatism is more or less septic from the beginning.

Without further speculation as to how these varieties of rheumatic disease are produced, or as to their pathology, it is of practical importance to recognize the fact of blood-poisoning. When we refer to the most reliable remedies, one of which was used in this case in very large quantities, we find they are such as are known to be positively antiseptic. Quinia was used here to the extent of probably securing its full antiseptic influence: the quantity was also sufficient for antipyretic effects.

CINCINNATI, OHIO.

ON THE RECOGNITION AND TREATMENT OF INFLAMMATION OF THE MIDDLE EAR IN SCARLATINA.

BY CHARLES W. MILES, M. D.

Observation has convinced me that the question of aural complications in scarlatina, as well as in certain other exanthematous diseases, amounts to practically nothing with a large number of general practitioners; and the ignoring of this complication may be expected when we consider the little importance attached to it by our text-books and teachers of medicine, if we are to judge by their silence on the subject.

Of five different works on the practice of medicine now before me, four mention the bare possibility of such a complication, without a word as to treatment; while the fifth speaks of external otitis (?), and offers, as the only treatment, the cleansing of the ears with warm water and soap, or, if that fails, a mild astringent injection. We are so constantly and forcibly warned against nephritis as the great and important complication to be avoided, that we almost invariably become blinded to all else.

It is equally as important that the ears should receive a daily examination during an attack of scarlatina, as that the urine should be examined for casts and albumen; and I feel quite sure that I will be borne out in this opinion by every one who has investigated the causes of deaf-mutism.

During the past two years I have treated three cases, which illustrate very happily the good results to be obtained by an early and judicious treatment of this disease. In reporting these cases, it will answer my purpose to omit such portions as relate to the scarlatina proper, since they present nothing unusual, and confine myself exclusively to the history and treatment of the aural complications.

CASE I. Willie P., aged eight years, was attacked with scarlatina in August, 1877. On the 18th of August I found him suffering with all the symptoms of an acute catarrhal inflam-

mation of the middle ear, which had supervened during the previous night. Laudanum had been poured into the ear pretty freely, under the idea that the child had "neuralgia of the ear," but no relief had been obtained.

Examination reveals hearing distance of right ear $\frac{6}{48}$; otoscope shows a pinkish-colored drum-membrane, with blood-vessels quite distinct; pressure on the tragus causes considerable pain; tuning-fork, when placed upon the head, is heard most distinctly in the right ear; left ear normal.

Treatment consisted in the instillation of hot water continuously until relief of pain, and afterward repeated every half hour, and continued for five minutes at each sitting. A saturated solution of chlorate of potash was directed for the throat. After the subsidence of the more acute symptoms, the middle ear was inflated daily by means of the Eustachian catheter. Under this plan of treatment recovery was complete.

Case II. I was called in May, 1878, to see Frank W., aged five years, who was convalescing from an attack of scarlatina; found him with a severe earache affecting both ears; hearing distance of the right ear a nullity, but the tuning-fork is heard very distinctly when in contact with the right side of the head; drum-membrane infected and bulging; the left ear is in about the same condition as the right. Diagnosis:—acute suppuration of the middle ear.

Paracentesis of both drum-membranes was done through Shrapnell's membrane, which was followed by a considerable discharge of pus, and immediate relief of pain. The after-treatment consisted in cleansing the ears daily by means of warm water injections, followed by Politzer's method of inflation, and the instillation of nitrate of silver, two hundred and fifty grains to the ounce of water. In this case recovery followed, with hearing distance of right ear $\frac{30}{48}$, left ear $\frac{24}{48}$.

Case III presents nothing materially different from Case II, and need not be recorded here.

In contrast with these cases, I need but refer the reader to individuals, to be found in every community, who have suffered from childhood with all the evils attendant upon a chronic

suppurative inflammation of the middle ear, or with a still more unfortunate condition of total and irremediable deafness.

As regards the treatment in cases of acute catarrhal inflammation, the abstraction of blood from the tragus, by means of leeches, probably yields better results than any other antiphlogistic means. But on account of the difficulty of obtaining leeches in a country practice, I have been in the habit of using hot water as a substitute, and the results have so far exceeded my expectations, that I am inclined to regard it as a curative measure but little, if at all, inferior to the abstraction of blood. To obtain the best results from this plan of treatment, the applications should be frequent and long continued, and as warm as can be comfortably borne.

I need hardly mention the importance of paying prompt attention to the throat trouble.

Should the disease progress to the stage of acute suppuration, as sometimes occurs despite our best efforts to the contrary, an early recognition of the change is of the greatest importance, as the good or bad result is often dependent upon an early paracentesis should the ordinary remedies prove of no avail. Should a perforation of the membrana tympani occur, together with other measures of relief I am in the habit of using nitrate of silver in solutions of from two hundred and fifty to five hundred grains to the ounce. With solutions of this strength, one or two applications will generally accomplish the desired result. It is far preferable to the slower method entailed by the use of solutions of twenty and forty grains to the ounce.

In conclusion, I wish to refer briefly to the habit, with a great many practitioners, of attributing the earlier symptoms of catarrhal inflammation to "nervous otalgia," and to the habit of pouring into the ears of their patients that most abominable of all bad remedies—laudanum and glycerine. And I refer to it more especially that I may impress the folly of such mistakes, by quoting one or two authorities on the infrequency of true otalgia. Roosa admits having met with but one such case in fifteen hundred. Dr. Kramer says:—

"I have never observed earache without evidences of inflammation, either of the meatus or of the membrana tympani." Wilde makes use of the following:—"Although I am not prepared to go to the length of saying that such an affection does not occasionally exist, I must say that I can not tax my memory with more than one or two instances of so called 'nervous otalgia,' for which I have been consulted, that, upon a careful examination, I could not discover some direct visible cause for it."

JORDAN, KY.

WAS IT DENGUE?

BY T. J. REID, M. D.

On March 12th, 1878, I was called to see Miss F., aged twenty-four years. Her present sickness began with anorexia, lassitude, drowsiness and general debility, resulting in a light fever of a remittent character, accompanied with nausea and vomiting, severe frontal headache, and great muscular soreness, and pains in the large and small joints, tongue somewhat swollen, swelling of the face and eyelids, considerable thirst and great prostration. Pulse 90 to 100 per minute. There was also numbness of the extremities and other parts of the body, with a pricking sensation. The tumefaction of the face would disappear and then return in a day or two, without any pain, redness or itching. These symptoms continued more or less for several weeks, during which time she had a second relapse. She could walk only with the greatest difficulty. She regained her strength slowly, the disease having left her much prostrated, with edema of the feet and legs, but she recovered entirely within six weeks.

Four days after Miss F.'s attack, Mrs. B., aged twenty-four years, mother of two children, was seized with the same disease. Her general appearance previously, indicated excellent

health. The symptoms were very similar to the former case, but more severe. There was more nausea, with vomiting of bilious matter. She also had an attack of syncope, and was troubled with urticaria. The fever was mild, and the pulse reached 110 on one or two days.

This condition lasted for two weeks, with intercurrent remissions, and feeling much better she arose from bed with the expectation of resuming her household duties, but was suddenly seized with most intense pain in both hips, legs and feet, which was only relieved by anesthesia. This pain continued two or three days, when it subsided everywhere except in the left foot and leg, which were cold and edematous, with a pricking sensation, and soon discoloration over the instep and underneath the toes appeared, resulting in well-marked dry gangrene. There was some fetor, and the limb was less painful when hanging down. The line of demarcation was formed at the metatarso-phalangeal articulation; the gangrenous spot on the instep was about the size of a silver dollar.

There could be detected no pulse in the leg, not even in the femoral artery; and as the constitutional symptoms of gangrene were becoming marked, Dr. Roane and I decided that the limb ought to be amputated. Dr. W. E. Rogers, of Memphis, was called and operated at the junction of the middle with the upper third of the leg. There was no hemorrhage from the main artery, and only one or two small arteries were ligated. Examination showed the blood-vessels to be in a healthy state. The patient bore the operation well, and made a good recovery.

This lady's suffering was agonizing for forty-one days, except when under the influence of powerful anodynes. She took eight and a half ounces of chloroform, beside a great deal of morphia and McMunn's elixir.

Three or four days after Mrs. B.'s attack, her husband, a young man of robust health, was taken with a chill, and in the progress of the case symptoms identical with the other two cases were developed. In the palms of his hands were some red colored blotches resembling purpura. It was about

three weeks before he recovered, and was disappointed twice by spurious convalescence, and had to return to bed.

Here were three young persons who, from childhood, had enjoyed unusual health, occupying high social positions, and rather Epicurean in their mode of life, living in the country in the same house, taken sick within the same week with symptoms so similar, that it must have been the same disease in all. Mrs. B. had two children, one two years and the other five years old, also an old gentleman lived with them who was a great sufferer from gout—all three escaped the disease. I understood two servants on the place were similarly affected, but did not see them.

What was the disease? Dr. Paul Otey, of Memphis, who saw Mrs. B., thought it toxic effect of malaria; but occurring at a season of the year when malaria prevailed to a limited extent, and quinia failing to control it, this could not be accepted as the *materies morbi*. Dr. Roane suggested some mineral poison, but after diligent search no local cause could be found.

The rheumatic pains, tumefaction of the face, tendency to relapse and tardiness of recovery, stiffness in the gait, numbness and edema of the extremities, the syncope and urticaria, correspond more to the symptoms of dengue than any other malady. Two important symptoms are wanting to confirm the diagnosis. The disease is said to prevail as an epidemic,* and is accompanied by an eruption. Here there were no other cases in the neighborhood, nor was there any eruption, except the urticaria in one case and the red spots in the palm of the hand in another.

As there is much obscurity about these cases, I have given a description of them to the readers of the American Practitioner, with the hope that some one may throw more light on the subject.

* Loomis says sporadic cases may occur.—Ed.

Mason, Tenn.

TREATMENT OF A CASE OF ASPHYXIA NEONITI.

BY C. M. RAMSDELL, M. D.

Mrs. H. summoned me to attend her in labor at about the beginning of the seventh month of pregnancy. The patient was a German, quite small, the mother of several children born at full term. She had been having pains at intervals of half an hour for eighteen hours, and had taken morphia on her own responsibility to stop the labor.

On making a digital examination, I diagnosed breech presentation, second position. Auscultation failed to reveal the fetal heart sounds; and when the lower half of the body was delivered, I could not feel any pulsation in the umbilical cord. The head was soon delivered, and I found the face nearly black, and the whole surface, especially the extremities, of a dark purple hue.

A few drops of blood flowed on severing the cord, and on removing the child a faint fluttering could be detected over the heart. Hot and cold water were applied alternately to the child, swinging by the arms as recommended by Cazeaux, and other means were used, but to no purpose. I then placed my mouth over the child's and forcibly inflated its lungs, afterward expelling the air by compressing the chest with my hands. A few efforts of this kind caused the heart to beat more forcibly, and it was remarkable to note how, after each inflation, the circulation seemed to receive a fresh impulse. In a few seconds again the heart beats would begin to grow slower and fainter, until another inflation. After nearly a half hour the inflation began to be followed by a feeble, gasping movement, the gasping growing stronger and more frequent, until in an hour and a half after birth the child began to breathe naturally. The congestion began to disappear with the first inflation, and by the time natural respiration was established, the cyanotic hue had given place to a rosy red, and the child soon went to sleep. The child lived, apparently

doing well for fourteen days, and then died from what seemed to be an attack of malaria.

I report this case as one showing the power of resistance to asphyxia in the immature fetus, and the importance of long continued exertions in resuscitating the apparently still-born.

LAFAYETTE, IND.

SYPHILITIC FACIAL PARALYSIS.

BY G. KAISER, M. D.

CASE I. In July, 1877, I saw Mr. E., a merchant, who was suffering with severe headache, affecting the right side of the head principally, with an exacerbation at night. There was no pain in the occiput, but he suffered so much from dizziness that he could not walk or stand. The left side of his face was paralyzed, his speech was indistinct, and the intellect sluggish. He had rheumatismoid pains in the left arm, extending to all the fingers of the hand, also large gummata were found on the back of his neck, and a few small gummy ulcers on his scalp. From a relative of the patient, I learned that he had been afflicted with headache for over a year, and six weeks since paralysis of the face ensued.

This history and these symptoms led to the diagnosis of tertiary syphilis, with probably gummy deposits within the cranium, on the right side. He had been under treatment before I saw him, and had taken bromide of potassium, hydrate of chloral, strychnia, and had leeches applied over the temporal region, and ice to the head.

The patient acknowledged having contracted syphilis when a soldier in the late war, and was discharged cured after six weeks' treatment, since which time his health has been only moderate. He is now married and the father of four children, all of whom have a scrofulous diathesis, two of them having phlyctenular ophthalmia—the oldest, aged twelve, beside the ophthalmia has enuresis.

Under antisyphilitic treatment, combined with arsenic and tonics, Mr. E. made a satisfactory recovery, and now attends to his business.

CASE II. I was called, in May, 1877, to see Mr. A. J., a butcher. The patient had been suffering more than nine months with headache, the pain being very severe during the last three weeks. Recently paralysis of the left side of the face supervened, with symptoms similar to the first case, except the rheumatic pains. He also had a gummatous ulcer on his left arm. He acknowledged having contracted a chancre eight years ago. The chancre was cauterized, but left a large hard lump, which disappeared after several months. He also had syphiloderma and alopecia. He is married now, and has two children, one of whom has rachitis.

The patient was treated successfully with large doses of iodide of potassium, and with beberis aquifolia, combined with tonics and a stimulating diet.

Remarks.—While mercury, with the iodides, is the sheet-anchor in the treatment of syphilis, yet I have been gratified with the use of beberis aquifolia, and have seen better results in most cases where it has been added to the common antisyphilitic treatment.

We are indebted to Ricord for the present classification of syphilis into three divisions, which enables the practitioner to pursue a rational treatment which leads to greater success than in former times. Gummata occupy a position in the tertiary group, and may properly be called syphilitic indurations, or plastic tumors of the connective tissue, and may be found alone (single) or in groups. They are of variable size, ranging from a filbert to a hen's egg, and are somewhat common in the brain. Cazenave, in his Traité des Syphilides, mentions a patient who had fifty gummata.

From observation, I have concluded that tertiary syphilis is a fruitful source of scrofula; and these two cases aid in substantiating the theory. The prognosis in these cases should be reserved, but they are usually very amenable to treatment.

INDIANAPOLIS.

FOREIGN CORRESPONDENCE—OUR LONDON LETTER.

MY DEAR YANDELL: I regret to say that, through some defect in the usually excellent working of the postal arrangements, my letter could not reach you in time for the January number of "The Practitioner." I trust, however, that for the future nothing but shipwreck of the mail steamer will break the steady flow of my letters—unless, horrible thought, your readers may request you to fill your pages in some other manner, and with more interesting and instructive material. The high character of your journal makes a correspondent nervous as to how far he may be able to keep up to its high standard. I can but fail, after all; but I will do my best not to disgrace myself.

The societies have not been lively; and the weight of depression in trade seems to have pressed upon the medical mind, and made the communications not quite so interesting as usual. At the Medical Society, Dr. Arthur Leared read a paper on "Dyspepsia from Impaired Movements of the Stomach," in which he pointed out that dyspepsia may arise from defective activity of the muscular walls of the stomach, as well as from insufficient secretion of gastric juice. In this form of dyspepsia there is no emaciation; the food is digested slowly but effectually, and the appetite is unimpaired. Such dyspepsia, he states, is the most common form: there is no pain in the digestive act, but it is accompanied by discomfort and by flatulence. The absence of pain is a great diagnostic point. Where the movements of the stomach are impaired the food is not actively rolled over in the stomach, and so its disintegration and solution are not accomplished readily. In such form of dyspepsia there may be constipation, but at other times there is diarrhea from the undigested food being passed through the pyloric ring into the intestines, and thence outward: being undigested it is not suited for assimilative processes, and so is swept away swiftly, causing that form of diarrhea which is known as lientery.

As to treatment, it consisted of course, in the first place, of suitable food; such food, indeed, as would not require much gastric movement for its digestion. The principal meals should be taken early in the day, he insisted, before the nervous system had been taxed by mental or bodily exertion. As to the medicinal agents to be prescribed, strychnia holds the first place. Although Chomel's condemnation of this agent has been indorsed by Brinton, whose work on "Diseases of the Stomach" is so well known; neverthe-

less, strychnia has held its place as a remedy for dyspepsia,—especially in that form where the muscular movements are imperfect. He objected to its administration in the form of pill, preferring it in solution, as liquor strychniæ for acid mixtures, and as the tincture of nux vomica where it was given along with alkaline mixtures. It will be found as a matter of fact that the addition of strychnia to the well known mixture of rhubarb and soda is very effective. The dose should be about the twentieth of a grain three times a day, and it is rarely necessary to exceed this. To check the fermentation which often accompanies this form of dyspepsia carbolic acid may be given, but Dr. Leared prefers thymol. He also advocated the use of charcoal, made from vegetable ivory, which absorbed the gas very readily. In a few cases it becomes necessary to pass a tube to allow of the escape of the gas.

The discussion which followed, of course, wandered from the point; and included reference to different forms of dyspepsia, including that form which is aggravated by fluids taken during the digestive act, and cured by the patient being restricted to a dry dietary: that form which is produced by bad teeth and imperfect mastication: that which is truly reflex, being due to uterine and still more to ovarian irritation,—being at times due to irritation elsewhere. As to the treatment of this reflex form, it is necessary to treat the source of the dyspepsia, the primitive irritation; and to give bromide of potassium to lessen the nerve conductivity, as well as to diet the patient.

Some little time ago, you gave an abstract of Mr. Spencer Wells's lectures on ovariotomy. There Mr. Wells said that he had only just commenced to perform ovariotomy by the antiseptic plan. Since then Mr. Thomas Keith, of Edinburgh, has published a pamphlet on "Ovariotomy before and after Antiseptics." At first when Mr. Keith tried the antiseptic plan, he sponged out the cavity with a solution of carbolic acid, washed his sponges therein carefully; antiseptic ligatures, first of silk and afterward of catgut, were used; and all instruments were smeared with carbolic acid oil. Towels were soaked in the fluid and held against the wound, in the hope of keeping the air pure as it rushed in when the peritoneal cavity was opened. The floor was sprinkled with the solution; the air of the room was charged with the vapor of carbolic acid. But all in vain; the results did not improve, but rather the reverse: this plan of operating brought nothing but disappointment and vexation of spirit, and was abandoned. Still belief in the virtue of the antiseptic plan

(if it could only be made practicable) survived. Extreme attention to cleanliness was next practiced; and no visitors or attendants were permitted to be present, who had, within a week, seen any case of infectious disease, or been in a dead house. This was all very well, but things did not improve: when cases went wrong, Mr. Keith had seldom to look far beyond himself for the cause of failure,—something done, something not done. This he found was a lesson very hard to learn. During the operation the abdominal cavity was very freely exposed, and there was no haste exercised in closing it; half an hour's waiting was time well spent. Every vessel was carefully tied: large lumps of cellular tissue were not tied, only the bleeding points. The clamp was gradually displaced by the cautery; and when ligatures were required to the pedicle, very fine soft iron wire or catgut was used—thick silk ligatures were never used. Then drainage, by a large perforated glass-tube, passing to the bottom of the pelvis, became the rule in severe operations. Finding that the red serum, that enemy of the ovariotomist, was not always so got rid of nor deprived of its power, it was removed by the tube and a syringe every three or four hours. Once no less than one hundred and forty-six ounces of fluid and clots were got away,—a matter Mr. Keith thinks very important *then*, if not so important now, under antiseptics.

"Since 1876 every operation has been performed, with all Mr. Lister's care, under the carbolic acid cloud, and I shall never go back to the old method," he writes. The operation may be simple, or it may take a long time and much care to attain good results. He found the mortality much lessened after leaving the old Edinburgh Infirmary and doing the operation in private houses. No results approaching those he then attained had hitherto been reached anywhere, whatever the advertisements of the Samaritan Hospital may say. Of nine deaths, five were probably hopeless under any condition. Mr. Keith says:—"I had not performed ovariotomy half a dozen times, when I felt sure that it would become, perhaps, the safest of all surgical operations." For seven years there was no death from a non-adherent simple tumor, and a large proportion of the fatal cases were of a cancerous nature. In the other fatal cases, with one exception, the operations were extremely severe,—large adherent tumors in feeble women, who came late in the disease.

The first operations performed under the carbolic spray were not such as to strongly tempt Mr. Keith to return to antiseptics. Some Germans—as Olshausen, Esmarch, Hegar and Schroeder—brought

forward their experience, before and after the use of the spray: from one-half the mortality fell to one-fifth.

Without antiseptics, Mr. Keith's mortality was altogether one in seven; of the last five years only one in twenty-one. He attributes his success to, first, the use of the drainage-tube; second, to the use of the cautery in dividing the pedicle; third, the use of Koeberlé's compression forceps; and, fourth, to the substitution of ether for chloroform, by which the after-vomiting is avoided, and the risk of hemorrhage after the wound is closed avoided.

Now for the results of fifty operations, performed as carefully as possible under the spray. Two of the first eight died; the rest, forty-two in number, all recovered. Of these fifty cases, five were patients he would gladly have not seen till he had had more experience of the spray. To give details of them is impossible; it is sufficient to say that at first the spray was tested very severely. Sufficient time was not given; all oozing was not so well attended to as it ought to have been; the drainage-tube was abandoned to be adopted again. The evil consequences, in the shape of after-fever from absorption, were well shown in one case insufficiently sponged, though it pulled through ultimately. Many of the last series of cases were simple operations. "Instead of, as in former years, advising against operation in cases of moderate-sized tumors, which had not yet become a source of danger, all were operated on just as they came: hence the number of simpler operations. [This is, to my mind, a very significant observation.] The spray is neither troublesome nor inconvenient. The instrument at present in use is Gardner's largest size. It has a double jet, and when placed at a distance of eight or nine feet, the spray reaches the wound without any cooling current and as fine as a London fog. That the spray is essential in ovariotomy to the perfect carrying out of Mr. Lister's principle, is proved by my experience over so many years of the simple carbolic acid treatment. There can be no two opinions about that."

With antiseptics the intraperitoneal treatment of the pedicle will be found to answer best. The clamp has done good service, but it must give way to something better. Of fifty-two cautery cases before antiseptics, four died; of thirty-two cautery cases with spray, all recovered. The convalescence was easier in the antiseptic cases. They suffered less from flatus, and slept better. The nurses had less trouble, and so got more sleep.

After burst-cysts, the temperature rose to a great height (105.5°

and 106.2°) a few hours after the operation. Hyperpyrexia, after the operation, he attributes to the patient being overfed, or in too full health with small tumors, or to imperfect cleaning or imperfect drainage, giving rise to absorption-fever. Before antiseptics he let full women bleed to ten or twelve ounces. For long his practice was to wait till the patient had suffered from her burden and interference was necessary. (This bears on the mortality of primary and secondary operations: where the operation gives relief to the organism, the prognosis is much improved.)

What then have we gained, he asks, by antiseptics in ovariotomy? First, it has lessened mortality. Second, this increased safety will encourage medical men to recommend earlier operation. Third, with antiseptic ovariotomy, the drainage-tube will not be nearly so often required. Fourth, convalescence is rendered easier. Fifth, antiseptics are a great comfort and relief to the operator in many ways; and render many precautions, formerly most necessary, no longer necessary.

That drawbacks may yet appear is quite possible. One's pleasure in this operation is, he says, greatly marred by the frequency with which malignant disease is found at the operation, or shortly after it, upsetting all calculations. One-fourth of his deaths have been in malignant cases. Five patients left, the picture of health, to die in a short time of peritoneal cancer. Thanks to the researches of Dr. Foulis, followed by those of Mr. Knowsley Thornton, when free fluid is found in the peritoneum along with ovarian tumor, no operation is performed,—microscopic examination of the fluid demonstrating its nature.

Mr. Keith concludes:—"This long despised operation is now the safest of all the great surgical operations, at least judging from the results; twelve deaths of the last one hundred and fifty-eight, three of the last seventy-seven, and no death of the last forty-three operations."

(This paper was read at a meeting of the South-Eastern Branch of the British Medical Association, on October 10th, and is printed for private circulation. So any reader who desires to possess it must apply directly to Mr. Keith, whose courtesy to send back a copy may fairly be relied on; but I have no authority from him to say that he will do so.)

Mr. Teevan recently read a paper at a suburban meeting, on the "Importance of Early Recognition of Stone in the Bladder, and the

Means of Detecting It." A big stone means much disease and great risk; a small stone little disease and small risk. For the diagnosis of stone a group of symptoms will often create strong suspicion, where each taken singly is of little worth. They are, first, frequency of micturition; second, difficulty of micturition; third, pain; all indicative of other diseases as well as stone—where the second is found it is often accompanied by priapism in boys; fourth, blood. "The man whose kidney bleeds, passes bloody urine; whereas the patient with stone in his bladder passes urine and then blood." Fifth, altered condition of urine; sixth, retention of urine; seventh, prolapse of the rectum (common in boys); eighth, incontinence of urine (where the stone is impacted in the prostatic portion of the urethra).

Rough motion will tell of a stone, but will not aggravate a stricture. Pain and blood, both increased by exercise, are indicative. For the actual detection of stone certain sounds are required, such as were invented by M. Mercier, with a short beak and a sharp angle. They are not difficult to introduce. Then the beaks should be hollowed on each side, so as to present a concave surface to the convexity of the stone. Three bony points—the sacrum, the spine of the right ischium, and the spine of the left ischium—may be struck, and cause a wrong diagnosis to be made. The operation of sounding can not be conducted too slowly; and the process of "whipping" the sound out of the bladder can not be too strongly reprobated.

I have just been told an almost incredible story by the Doctor I am with down in Hampshire. His predecessor was once called in by a neighboring practitioner, who had pulled off, as he thought, a child's head with the forceps, and who could not find the body of the fetus. He found that the old boy had extracted a fibroid tumor; but nothing but cutting it open could convince him of his mistake.

A well known medical baronet, about whom some good stories are told, but who is not a universal favorite, was recently called to the country; and, on careful examination, found severe pericarditis which had not hitherto been noted. When the doctors retired for their private consultation, the consultee made profuse apologies for his diagnostic omission. The facetious baronet patted his junior on the back, and comforted him a Jobish manner by saying, "Perhaps it is just as well that you did not find it; because, you know, my dear fellow, *if you had you might have treated it.*"

Reviews.

Situsphantom der Organe der Brust und oberen Bauchgegend. Von ADOLF FERBER, Privatdocent und Assistent an der Medicinischen Klinik zu Marburg. Bonn, 1877.

Manual of Physical Diagnosis. By FRANCIS DELAFIELD, M. D., and CHARLES F. STILLMAN, M. D. New York: Wm. Wood and Co. 1878.

Both of these books are intended for use in physical diagnosis. The first deals almost entirely with some of the topographical relations of the thoracic and abdominal organs. It comprises a small pamphlet of explanations, and the "situsphantom" or superimposed plates, giving successive views from outwards within of the thoracic skeleton and the abdominal walls removed, so as to expose the liver, stomach and large intestine *in situ*. Successive views are given of the lungs and trachea, then the pericardium with heart contained, then the heart and vessels in position and pericardium removed.

The topographical details in the "Tent," which is separate from the "Phantom," begin with the pleura, in its several divisions of—first, pleura costalis: second, pleura diaphragmatica; third, pleura mediastinalis; fourth, pleura pulmonalis. Some considerable space is devoted to *Die Disponiblen Pleuraräume*, or reserve spaces in health and disease. The lungs, their borders, surfaces and lobar divisions, are next treated briefly in the same light of topography. Then the heart and its annexes form the next subdivision. The position of the diaphragm, the stomach, the liver, the spleen, the kidneys and the colon, are the headings under which are grouped important and instructive information, with reference to abdominal exploration and physical diagnosis.

Dr. Ferber says he has used his "situsphantom" for years in his instructions of students in physical diagnosis. Undoubt-

edly it is a useful and convenient expedient for such purposes, and it is of such size and so framed as to be easily handled and referred to, either in the hospital wards or office. Its size is twelve by nine inches, and the coloring and workmanship are excellent. We have taken pleasure in calling the attention of classes of students to it as a desirable companion in their studies.

The second work is given out as a "Manual intended for the use of those who have to teach and to learn the art of physical diagnosis." It consists also of a "Situsphantom" and the tent, treating of the several methods of physical diagnosis, beginning with inspection and running through the ordinary gradation to auscultation. The book is a summary of the physical signs ordinarily grouped under these headings and developed by these methods, and of the several signs pertaining to and found in association with the different diseases of the lungs, pleura, heart and large vessels. The summary is comprehensive, and yet in sufficient detail for the quick reference which the authors aim to afford to student and teacher. The book is interleaved, and with the "situsphantom," or superimposed plates, is recommended to be taken to, and used at the bedside. Yet the space given on the blank leaves would be soon filled, and there is no easy way of adding more, so that it could not be of service for any length of time in that way. It strikes us as not a very convenient book to carry about a hospital ward or private houses.

If the foreign work and the New York one could be combined in one volume, each would supplement fairly the deficiencies of the other. The foreign one needs more of the practical details of the New York volume, and the latter should supply some of the topographical facts of the former.

We desire to add one or two more remarks. The striking resemblance between the "superimposed plates" of Delafield and Stillman (which are claimed to be original) and the Situsphantom of Ferber, suggests either a common origin of the two in some other plates of "Anatomie Iconologique," or else that the New York authors have made a rather close

copy (with some unimportant variations) of the foreign work. Any one who compares the "Plates" and the "Phantom" will scarcely think otherwise. The German work was published early in 1877; the latter in the close of 1878. D. and S. make no allusion to Ferber.

The execution of the "Phantom" is much better in its mechanical adjustments, and in its coloring; the work is also cheaper. W. C.

Lectures on Bright's Disease of the Kidneys—Delivered at the School of Medicine of Paris, by J. M. CHARCOT, Professor in the Faculty of Medicine of Paris. Translated by HENRY B. MILLARD, M. D., A. M. Illustrated. New York: William Wood and Co. 1878.

This work presents concisely the characteristics of Bright's disease. It bears the same relation to a complete work—like that of Bartels's, for instance—as one of Flaxman's outline drawings does to one of Meissonier's finished pictures.

The first and second lectures present, in a clear and satisfactory manner, the normal anatomy of the kidney, with some physiological considerations. In this part of the work some very good illustrations aid the text in communicating a knowledge of structural details.

The third lecture describes the forms of tubular infarctions of the kidney, and the various kinds of urinary casts. The author holds that the clinical importance of urinary casts has been greatly exaggerated. "They are not, as they have been called, 'faithful messengers announcing to the clinical observer the anatomical condition of the kidney,' mirrors reflecting the various renal lesions." As they are formed in the ultimate parts of the apparatus of the tubuli uriniferi, they can only, in any case, furnish information of these parts. Hyaline casts are found in the urine in normal conditions, as pointed out by M. Robin in 1855. They are also met with in various other affections than those of the kidneys, and where there is no albuminuria. The granular casts may aid in establishing the

diagnosis of the *form* of the disease; but it is to be remembered that the lesions of Bright's disease may exist without any casts being found in the urine.

M. Charcot does not believe in the *theory of the unity* of Bright's disease, but in what he calls the English theory, that recognizes several forms of the malady. Three of these are described:—*Interstitial Nephritis*, a genuine cirrhosis affecting primarily the connective tissue; *Parenchymatous Nephritis*, affecting principally the epithelium; and third, the *Amyloid Kidney*, in which the alteration affects principally the small vessels.

The fourth, fifth and sixth lectures are devoted to a description of the two principal forms of the disease. The histological changes in the kidney, and the symptoms and progress are given, and the conclusion arrived at, that they are as distinct clinically as they are from an anatomo-pathological point of view.

The seventh lecture concludes the volume, and contains the author's views in relation to *scarlatinous nephritis* and the *amyloid kidney*.

Two very good chromo lithograph plates are given, showing exterior appearance of the large white, and of the contracted kidney, and a longitudinal section of the former.

The translator has performed his work carefully and well.

J. R. W.

Organic Materia Medica and Pharmacal Botany. By L. E. SAYRE, Ph. G. Philadelphia: D. G. Brinton. 8vo., 220 pp.

The little volume before us purports to be a conspectus of "Materia Medica and Pharmacal Botany," and is especially written for students of materia medica. About sixteen to twenty pages are devoted to a chart of the botanical part of the work. The natural orders to which the various plants described belong are arranged alphabetically. In parallel

columns are given, first, the officinal names; second, the botanical names; third, common names; fourth, habitat; fifth, parts of the plants used; sixth, constituents; seventh, medical properties; eighth, dose, and occasionally remarks on some of the medicines.

Our author next treats briefly of the general structure of plants, as well as of their various organs. He adopts, and we think wisely, the natural system of classification. This, although more difficult to the beginner than the artificial system, will be more satisfactory to the diligent student who wishes to make himself thorough in this branch of science.

The descriptions of special plants occupy the larger bulk of the work. The descriptions are clear and concise, and interest the student of pharmacy much more than the student of general medicine. In fact the work is one which will not find a large sale among physicians and their pupils.

Under the head of "Animal Drugs," our author treats of canthares, leeches, musk, milk, ox-bile, and a few other animal products. A table of the more active poisons, and their antidotes and incompatibles, takes up two pages. A chart of the more important alkaloids with their tests closes the work.

J. I.

Report on Yellow Fever in Ohio, as it appeared during the Summer of 1878. By THOMAS C. MINOR, M. D., Health Officer of Cincinnati. Cincinnati Lancet Press.

From the preface of this pamphlet one learns that on the fourth of November last, the Board of Police Commissioners of Cincinnati instructed Dr. Minor to prepare a report on yellow fever in Ohio, as it appeared in the summer of 1878, for presentation to the yellow fever commission that was to assemble in Richmond, Va., on the nineteenth of the same month, and on the fifteenth this report was submitted. Eleven days

is a very brief period in which to prepare such a paper as this, even though the material for it were well in hand; and while something of crudeness and imperfection almost necessarily attached to such haste, the publication will be found a full and valuable history of the late outbreak of yellow fever along the Ohio river from Rising Sun to Pomeroy; and contains beside the personal experience of Dr. S. H. Collins, of Cincinnati, in the yellow fever at Memphis and Lagrange, Tennessee.

Included in this report is a history of the plague-ridden and plague-distributing steamer John Porter, whose ill-fated condition and influence affords one of the saddest, and at the same time one of the most instructive, lessons of the late yellow fever scourge.

Dr. Minor, in accumulating the material for the report, had the aid of a number of intelligent and courageous medical men who had personal knowledge and experience in the observation and management of the desolating disease, including Drs. Carr and Slough of Cincinnati, and Vance of Gallipolis, who were together or successively in charge of the John Porter. From these various sources are derived the detailed symptoms, progress and treatment of a number of cases, and the author gathers facts that he feels authorizes him to make some "Remarks regarding the symptomatology of yellow fever cases observed in Ohio," and present some points in elucidation of the question, "Is yellow fever a contagious disease?"

As a whole the pamphlet is rich in food for thought, and will aid in impressing us all with the importance of familiarizing ourselves with the nature of yellow fever, which last year's experience has shown may ascend to any latitude, and mount to any altitude, where certain atmospheric, telluric and meteorological conditions combine to invite it. There is abundant evidence in the history of the yellow fever to warrant the apprehension that if there be not a wise application of the technics of sanitary science, an intelligent cultivation of hygiene, a thorough enforcement of prophylaxis as occa-

sion may require, this century will not close without witnessing a devastating epidemic of black vomit along the entire length of the Ohio river and many of its tributaries.

Dr. Minor's report is valuable for study in the line of our necessary education. J. F. H.

Differential Diagnosis—A Manual of the Comparative Semeiology of the More Important Diseases. By F. DE HAVILAND HALL, M. D., Assistant Physician to the Westminster Hospital, London. American edition, with extensive additions. Philadelphia: D. G. Brinton.

This book is not so large and complete for this day as Da Costa's was at the time of its publication; but as far it goes it is quite as satisfactory, perhaps more so, and it covers the ordinary every-day work of the physician.

The American editor says that it was at first designed to republish Dr. De Haviland Hall's Synopsis of the Diseases of the Larynx, Lungs and Heart; but upon reflection he concluded to make the book cover all the more frequent and more important diseases. But who is the American editor? His name is not found on the title-page; it is not attached to the American preface, nor does it appear elsewhere on the publication. Perhaps it does not matter; but the average American reader, whether professional or lay, has a *penchant* for knowing whose crystallized thoughts he is perusing. Certainly the American editor of this book need not be ashamed of his work, for it is very well done, he having, in a system of parallel columns, tabulated the characterizing symptoms of the chief common diseases in such a brief and comprehensive manner, that the principal points for differential diagnosis may be seen in juxtaposition at a glance.

Diagnosis is demanded in every case of illness, and the ability to make it is a prime qualification in every good physician; but the acutest doctor sometimes fails in this exercise,

because of the indefiniteness of the indications or the mixed signification of the symptoms. Any means, therefore, which will prove an aid to the inquirer in this direction will be of service; and of such character is the book under notice, and all its readers will find it of benefit, whether they are "members of the profession or preparing to become members."

It is not a book that a practitioner wants to sit down and read through, but one that he will be glad to take from his shelf and consult, when he returns from a first visit to a little patient who has a sharp fever, a hoarse moist cough, a sore throat and a maculated skin, to help him determine whether he has to deal with a case of roseola with catarrh, or rötheln, or measles, or scarlatina. J. F. H.

A Manual of Prescription Writing. By MATHEW MANN, A. M., M. D., Lecturer on Clinical Medicine, Microscopy, etc., in the College of Physicians and Surgeons, New York. New York: G. P. Putnam's Sons.

Recently in one of our eastern cities an apothecary was heavily fined for mistaking the abbreviation of ounce, "oz.," for the drachm (ʒ) sign in a physician's prescription, a bad result having followed the administration of the remedy. The book before us is presented to the profession to inculcate the principles of correct prescription writing, and as complemental to medical college instruction, and thus in a measure avoid such mistakes as the above. Rules are given for the grammatical construction of prescriptions; the metric system is fully explained; the doses of medicines, the medicinal combinations and incompatible remedies are tabulated. There are a great many little facts in the book that are not found elsewhere, and we would warmly recommend every medical student to procure a copy.

Clinic of the Month.

IODOFORM—ITS USES.—Mr. Wyndham Cottle, Lancet, January 18th, gives the following statements as to the therapeutic applications of iodoform:

As an Internal Remedy.—For the later forms of syphilitic disease, especially of the tongue, iodoform has been highly recommended by Mr. Berkeley Hill, and also for naso-pharyngeal affections by Dr. Prosser James. A grain or a grain and a half, with extract of gentian, sarsaparilla, etc., in the form of a pill twice or three times daily, is advised. I have given it in many cases of syphilis. I must, however, confess my experience of iodoform, when administered internally, has not been equally favorable. I did not find the improvement I had hoped for in my patient's condition, while the most marked effects of iodine were very often induced—intense frontal pain, coryza, loss of appetite and sickness, with heightened temperature and quickened pulse. In one case these severe symptoms followed the administration of half a grain twice daily.

As a Local Application.—For some years in America, on the Continent, and in England, iodoform has been a remedy rapidly growing in favor both for venereal and primary syphilitic sores. Its advantages in these cases are attested by the highest authorities. Very useful is it also in most forms of ulceration, whether specific or not, and in almost any situation. It may be applied with advantage to ulcers of the legs, to rupial sores, to buboes that have become open wounds, to ulcerations of the vagina, uterus, etc. This agent has been highly spoken of as an application in cases of post-nasal catarrh, of ulcerations of the throat, of ozena, whether syphilitic or not. As a parasiticide it is serviceable, many cases of tinea tonsurans, sycosis, etc., improving under its influence.

Most soothing, too, is it generally when used topically to malignant ulcerations. Indolent sinuses may often also be beneficially injected with solutions of iodoform.

Two points of clinical importance must, however, be borne in mind in the employment of iodoform. Though a local anodyne, it is in some degree an irritant. It should never, therefore, be applied to an inflamed surface, since it is likely to cause irritation and pain. It is to the indolent ulcer, in which action is absent or deficient, that it acts so beneficially. And, again, iodoform is apt to inflame the sound skin that surrounds the lesion it is intended to benefit, if kept in contact with it for any lengthened period.

Many plans have been devised for applying this drug. On ulcers and venereal sores, previously cleaned and dried, it may, when finely powdered, be lightly dusted, a piece of dry lint being laid over it, and the dressing renewed night and morning, while the discharge is profuse, once daily being afterward sufficient. Tannin or fuller's earth may be mixed with the iodoform in any proportion if it is desired to moderate its action, equal parts of the ingredients being generally prescribed. Iodoform can also readily, by trituration, be made into an ointment with lard or vaseline, or any of the petroleum derivatives, five to twenty grains to an ounce of the base. This mode is especially useful when it is desired to make the application to internal cavities.

Iodoform is sparingly soluble in water and glycerine, somewhat more so in alcohol and warm oil, but readily dissolves in ether, and to a still greater degree in chloroform. This property furnishes us with perhaps the most convenient and easy method of application. A solution of one part of iodoform in six to twelve of either of the last-named bodies is painted with a camel's-hair brush over the surface to which it is desired to apply it. The solvent evaporates, leaving a film of iodoform, and in most cases the process should be repeated once or twice daily. To avoid the pain which this evaporation of the solvent is apt to produce in sensitive parts, such as the nasal fossæ, Dr. Woakes advised "iodoformed wool"—that is,

finely-carded cotton-wool with which an equal weight of the drug has been intimately blended. A piece of this medicated wool is to be placed in the required situation, and allowed to remain there from one to twenty hours.

The extremely penetrating and disagreeable odor of iodoform is its chief objection in practice. I find this is best obviated by great care that none of this powerfully-smelling drug is dropped on the patient's clothes, that when applied it is as far as possible covered over, and in some degree it may be disguised when made into an ointment by prescribing with it some essential oil. Tannin, also, when mixed with iodoform possesses the peculiar property of in some measure removing its odor.

Treatment of Alcoholism.—Dr. F. P. Atkinson (London Practitioner for January) writes as follows:

Some of the most distressing cases we, as medical men, are called upon to attend are those of alcoholism, and it has, unfortunately, fallen to my lot during the last few years to have several from time to time under my charge. A good deal has been written by different persons with regard to treatment, but I do not think this ought to deter one from putting on record his own personal observations, since it is only by accumulation of evidence that proper conclusions can be arrived at. As far as I can see, there would appear to be three different stages in the disease, viz.:

1. *Sleeplessness*, accompanied by a hard quick pulse; loss of appetite in the morning, and morning sickness.

2. *Drowsiness*, accompanied by a slow, somewhat compressible and excitable pulse; complete loss of appetite; and constant sickness. The blood has in it an excessive amount of hydrocarbon.

3. *Delirium*, accompanied by complete absence of sleep and the presence of horrible apparitions, especially at night. The pulse is small, quick, easily excitable and compressible. The blood is deficient in red corpuscles. Hydrocarbons are present in poisonous quantities; the brain undergoes little or no repair. The vaso-motor nerve influence is almost entirely

lost. The treatment I have found beneficial in each stage is the following:

First stage.—Træ. rhei, . . . min. x.
Træ. card. co., . . . ℥ ss.
Træ. hyoscyami, . . . ℥ ss.
Acid. hydrocyanic. dil, . min. iij.
Sp. chloroformi, . . min. xv.
Aquam ad ℥i. quartis horis.

The prussic acid acts as a sedative to the stomach, heart, and brain. The hyoscyamus has also to a certain extent the same effect.

Abstinence from stimulants in this, as in the other stages, is strictly enjoined, but when I find it difficult to get this carried out, I allow a glass of claret three times a day. It is essential that the patient gets plenty of light and easily digestible food, and with this object I order Brand's essence of beef, milk and eggs beaten up together, and barley water. This diet is suitable to each stage. The only thing to be said is the more the depression the more the nourishment.

Second stage.—The treatment should be the same as just described, only it is as well to omit the prussic acid, as there is not the same excitement present.

Third stage.—Chloral should be given in thirty-grain doses every four hours, till sleep comes on, and then repeated as often as necessary. The nourishment should be by no means forgotten, and stimulants should be strictly forbidden.

If chloral is gone on with beyond a certain time, a sleepless condition recurs, when nux vomica and gentian should be given as follows:

Træ. nucis vomicæ, . . . min. x.
Træ. gentian co., ... ℥ ss.
Ess. limonis, ... min. i.
Sp. chloroformi, ... min. xv.
Aquam ad ℥i. ter quaterve die.

This rarely fails to reinduce sleep, but if persisted in long after it has produced its effect, sleeplessness returns. When this is the case the tincture of gentian, calumba or chiretta should be given alone.

THE HOT BATH AS A RESTORATIVE.—There is one remedy whose employment in medicine is almost as old as is the human race, but which yet seems to us to have an important use not generally practiced. We refer to the hot bath. As sudorifics hot baths are sufficiently in vogue, but their employment as restoratives is not so universally recognized.

The phenomena of death from cold show that a lack of caloric in the body is no less paralyzant of animal functions than is an excess of the same force. Evidently the organism was constructed to run upon a certain plane of heat, and can not vary from this without serious results. By numerous experiments upon animals, in the laboratory of Prof. Wood, in the University of Pennsylvania, it has been proven that in a cool apartment death rapidly results after section of the spinal cord, from falling of the bodily temperature, the animal which in a warm room will live indefinitely, dying very shortly in a temperature of 50° Fahr. The cause of the inability of the animal to resist external cold after section of the cord is undoubtedly vaso-motor paralysis. Normally, the temperature of the interior of the body is maintained by keeping an outer layer of partially-cooled tissue between the internal organs and tissues and the outer air. When, however, the power of contracting the superficial vessels has been lost, the organism can no longer maintain this protecting layer, the surface temperature rises, heat is rapidly lost, and soon the whole body becomes uniformly cooled.

Vaso-motor paralysis is produced by toxic doses of various remedies, and under these circumstances artificial maintenance of the bodily temperature is imperative, forming a most important portion of the treatment of all such *poisoning*. *Collapse* from any cause is largely dependent upon, or, more correctly speaking, largely is, vaso-motor palsy: hence in almost all forms of collapse the use of external heat is of great importance.

Dr. Charles Hunter, of this city, has very successfully applied this treatment to that form of collapse which follows injuries and surgical operations and is known by surgeons as *shock*. The lack of power of alcoholic and other ordinary stimulants

in this condition is proverbial. The pathological state is undoubtedly vaso-motor palsy, the bodily temperature is much below normal, and the rational treatment consists in the hypodermic use of atropia and digitalis and the external employment of the hot bath. This plan of treatment will probably be found to be a very important addition to surgical therapeutics. In the first days of post-fetal life the power of resisting external cold is very slight, and in many cases of still-born children, or of children whose vital powers are almost extinguished at birth, life may be saved by a high external temperature, the little waif being kept in an air of 90° to 100° Fahr., and from the influence of cold walls which shall draw off, as it were, the little store of heat provided by nature; for there is no doubt that radiation is greatly affected by the temperature of surrounding objects. . . . .

In regard to the methods of applying heat, it must, in the first place, be understood that wrapping in blankets, etc., are only useful as a means of preventing cooling of the body; that when the animal temperature has already fallen they will not suffice at all. The same may be said of air heated to temperatures which can be readily obtained or can be borne by the attendants. Radiated heat is somewhat better, and often the use of a brisk open fire is of service. The *hot bath* is, however, the only pyretic remedy which can be relied on, when a Turkish bath is not at hand. It should always be a full bath, in as warm a room as can be procured, and should be at a temperature of about 103° Fahr., when the patient is put into it. The duration of the bath must vary with the circumstances of the case. Frequently, ten minutes will be long enough, but if the mouth-temperature does not rise to normal, a much longer tarriance may be advised. During the bath the heat of the water should steadily be increased as fast as it can be borne, if the patient be conscious. It will be found that 110° is about the limit of endurance for most persons; and in unconscious subjects this limit should not be passed. (Philadelphia Medical Times, Feb. 15th.)

Notes and Queries.

TRANSACTIONS OF THE CINCINNATI MEDICAL SOCIETY.—At a meeting of this Society, held January 14th, the following matters were discussed—(Reported by Dr. B. Stanton):

Dr. Goode reported the following case:

On December 11, 1878, I was consulted by L. M., thirty-five years of age, born in Cincinnati, unmarried, and by occupation a lithograph printer. Patient has been a hard drinker; says he has never been under medical treatment, except by myself for gonorrhea about ten years ago. Three weeks previous to consulting me he found it difficult to lie on the right side; and about the same time had a light chill and pain in the left side, attended with some cough. He never had pain in the chest before that time. Recently he has had dyspnea on making any extra effort, which is the only inconvenience. He sleeps well, has a good appetite, bowels regular, and urine normal in quantity and quality. He has continued at work up to time of consulting me.

Present condition.—Temp. 102½°, pulse 100, respiration 39; tongue clean. Physical signs show an absence of vesicular murmur, and flatness on left side on a level with the nipple; bronchial respiration and dullness above. The heart is pushed upward and to the right. Vesicular murmur and percussion sound exaggerated on right side with prolonged expiration; fremitus marked on right, not perceptible below the nipple on left side; the left side measures one inch more than the right. I ordered quinia and acetate of potassa. The treatment was continued with daily observation until the 19th, when the pulse was 100, temp. 100°, resp. 35. The line of dullness was much lower, and his general condition was good. He has been passing a large quantity of urine. A small blister was

ordered. The patient was doing well until the 27th ult., when there was an increase of effusion; and on the 28th he had several paroxysms of dyspnea. On the 29th the pulse was 120, temp. 103°, resp. 42, and breathing labored. Aspiration was resorted to, and sixty-four ounces of fluid drawn off, to the great relief of the patient. Subcrepitant râle heard near the point of puncture, which was made between the eighth and ninth ribs on a line with inferior angle of the scapula.

December 30th.—He has been resting well; no pain; lies on either side; heart-sounds heard in normal position; vocal fremitus on left side heard as low as ninth rib; urine free; bowels moved; tongue clean and moist; temp. 101½°, pulse 100, resp. 35; has a good appetite; cough a little more troublesome. He continued the same until the 7th inst., when the temperature became elevated, with increased pulse-rate; cough about the same, sputa rusty; crepitation heard at the base of right lung, together with moist râles.

January 8.—Temp. 103½°, pulse 104, resp. 33; other conditions about the same. The patient died on the morning of the 9th. Post mortem examination made twenty-four hours after death by Dr. Mackenzie.

Body considerably emaciated. Thoracic cavity only examined. Left pleural cavity contained in its lower part about a quart of serous fluid. The lower portion of the lung was compressed upward and backward, and completely carnified. The upper part of the pleural cavity was obliterated, the lung being firmly adherent to the chest-wall. The posterior portion of the upper lobe was completely consolidated; the tissue was very fine, of a grayish color, and contained a few small cavities, some of which were the result of dilatation of the bronchial tubes; the anterior portion of the lobe was very edematous. There was no indication that any injury had resulted from the puncture. The right lung was firmly adherent throughout. The upper and middle lobes were very much indurated, containing a great amount of fibroid tissue, of a dark gray color on section and almost devoid of air; there were a few small cavities scattered throughout. The lower

lobe was crepitant, but contained a few scattered fibroid nodules; in its anterior portion was a spheroidal mass about one and a half inches in diameter in a state of red hepatization, but no where else in either lung was there any evidence of inflammation of the pulmonary tissue. The walls of the heart were pale and flabby, but the organ presented nothing else abnormal.

That the paracentesis had nothing to do with the death of the patient, there can be no doubt. Had there been a positive diagnosis of phthisis, the operation would have been justifiable. Dr. Bowditch reports a case of phthisis, with pleuritic effusion, in which there was impending death, which was promptly relieved by paracentesis, the patient living for five months in comparative comfort.

Dr. Murphy said that during his present term at the Cincinnati Hospital, two cases presenting features somewhat similar to the case reported by Dr. Goode had been under his care. The first was that of a woman who was admitted on the first of January, three weeks after the beginning of her illness. The history of the early stages of her disease was not fully reported, but at the time of Dr. M.'s first visit he found the patient suffering from dyspnea. She was sitting up in bed, respiration being impeded by the recumbent posture. The countenance was cyanosed; pulse frequent. On examination he found an exudation in the left pleural cavity. Fifty-two ounces of serous fluid were withdrawn by aspiration, which gave marked relief to the dyspnea, and caused a reduction in the frequency of the pulse. The lung expanded so that vesicular murmur could be heard over most of the chest. Digitalis was given, and the patient seemed to be doing well.

In another case, admitted to the hospital after an illness of three weeks' duration, an accumulation of fluid was found in the right pleural cavity. Seventy-two ounces of fluid were drawn off by aspiration, by which the distressing symptoms were mitigated. This patient has not had much cough, and although she has some chronic lung trouble, she goes about the ward and assists the nurse in her duties. For a time there

seemed to be a reaccumulation, but at present the vesicular murmur can be heard.

The speaker thought the operation of paracentesis in these cases of pleuritic effusion contributed greatly to the comfort of the patient, tends to promote recovery, and is attended with but little danger. With care puncture of the lung is not likely to occur; and if it is punctured with a small needle, such as is used on the aspirator of Dieulafoy, it is not likely to result in injury. Aspiration of the bladder, peritoneal cavity, and abscesses in different parts of the body, is attended with but little danger; and in the pleural cavity the risk is so slight that the operation may be regarded as justifiable, where expansion of the lung is interfered with by pressure of fluid. He thought Dr. Goode's operation on his patient justifiable, although there was enough chronic disease of the lungs to have terminated life sooner or later. Suffering was alleviated, and life no doubt preserved by the operation. In many cases he thought accumulations in the pleural cavities are overlooked. He related a case of a man who consulted him a few weeks ago, complaining of acute pain in the left side, between the fourth and fifth ribs; there was tenderness on pressure, no cough, pulse 110, temp. 101°. The patient had taken cold by walking across the Covington bridge on a cold day. A careful examination revealed no friction-sound; there was no evidence of pneumonia; the only evidence of pleuritis was the pain between the fourth and fifth ribs. Morphia was given for the relief of the pain. On the sixth day friction-sounds were heard on the left side, and on the right side, below the scapula; respiration not much embarrassed. There is at this time pleuritic effusion; and if the patient does not get better soon, Dr. M. will think it his duty to aspirate. In cases of chronic pleurisy aspiration should be resorted to, as the operation is not attended with much danger; and if the lung remains compressed, there is danger that edema of the lung may occur, or it may become adherent at the top of the chest. He thinks Dieulafoy's instrument better and safer than the one recommended by Dr. Bowditch.

Dr. John Davis said he did not object to Dr. Goode's procedure in the case he had reported, or differ with Dr. Murphy as to the propriety of aspiration in some cases of pleuritic effusion; but in many cases large quantities of fluid have been removed by the administration of medicines which promote absorption of the effusion. He had recently seen reports of cases successfully treated by the administration of jaborandi (*pilocarpus pinnatus*). It was given in doses of half a drachm of the fluid extract, or four ounces of an infusion of a strength of half an ounce to ten or twelve of water. He recommended a trial of it in these cases, also in cases of acute catarrh of the nose, throat or bronchial tubes.

Dr. Mackenzie said that in general the operation of paracentesis thoracis is innocuous; but there are cases in which it is not harmless. He had recently reported to this society two cases of tubercular pleurisy in which the operation was performed. In one case life was prolonged three months; in the other death occurred in two hours from the shock of the operation. In reference to the question, when should the operation be performed, Dr. Anstie recommends that it be performed if the fluid is not absorbed in one month. In regard to the administration of remedies as compared with aspiration, Dr. M. thought the operation better than large and repeated doses of drastics, cathartics, and such other medicines as are used to promote absorption. It is a simple operation, not attended with much danger, and speedily removes the fluid, allowing the lung to expand, thereby preventing adhesions at the top of the chest, or edema of the lung.

Dr. Comegys said he had had a pretty large experience in chronic pleurisy—had resorted to aspiration at least twenty times, and had had no accident except in one case in which the patient had been long ill; the left side of the thorax was full, the lung compressed, and the heart pushed to right side. The necessity for the operation was plain. A large amount of blood-stained fluid was withdrawn, after which the patient complained of pain under the left clavicle. On examination at the next visit, he found the pleural cavity filled with air in

consequence of rupture of the lung from chronic disease of that viscus. He afterward punctured the abdomen, drew off a large quantity of fluid from the peritoneal cavity, with relief to the patient. He had aspirated in some cases where tubercle was the cause of effusion, with the effect of prolonging life and mitigating suffering. He would not hasten to operate unless the patient's life was imperiled, or there was danger to the compressed lung. In acute pleurisy he does not resort to it. In such cases he likes the use of blisters as the acute symptoms are subsiding. In regard to the instrument, he prefers a simple one—generally uses a canula so shaped that it can be attached to a Davidson's syringe. It is equally as good and much cheaper than Dieulafoy's instrument. He thinks great rapidity in evacuation should be avoided. In regard to the use of jaborandi, he has found it not satisfactory owing to its unpleasant effects. It is very sickening and depressing, and he had trouble to get his patients to persevere with it.

Dr. J. Davis said that the reported cases of disease of the pleura in which aspiration has been performed show that the operation is not unattended with danger, and he wished to express his disapproval of hastily resorting to it. We should consider whether blisters, cupping and diuretics should not be first tried. The administration of jaborandi causes a demand for water, and it is first absorbed from the parts in which it is not found in a normal condition, in cases of chronic pleurisy from pleural cavity. He thinks, perhaps, Dr. Comegys has used it in too large doses. We should not seek to promote absorption too rapidly with these remedies. If we can get the fluid away by such means, he thought it better than to incur the risk of piercing the lung, or causing the patient to die from shock of the operation.

Dr. Murphy said he could understand how we might have ill effects from simple operations, as in bleeding or catheterization, etc.; but in general the operation of aspiration is harmless. True, the lung has been pierced; but the danger of this is so slight that it should not weigh against the greater

danger of compression. Acute pleuritis without any diathesis is extremely rare. Nearly all of the cases of pleuritis which come under the care of a physician are subacute or chronic; the exudations are serous, contain but little plastic lymph, the accumulation is moderately rapid. Blisters are frequently a source of such great irritation as to render their use injudicious. To promote absorption by repeated purgatives is often out of the question, and diuretics are slow in their effect upon the effusion. Aspiration is more rapid, gives prompt relief, reduces cough, promotes rest, and gives nature an opportunity to absorb the remainder of the fluid.

Dr. Davy said he preferred the use of the ordinary remedies to promote absorption in cases of pleuritic effusion; but if they were not soon successful, he would remove the fluid by aspiration. He referred to the use of milk as a diuretic. It has been thus used by the French with success; it is nutrient, builds up the system, and at the same time stimulates the renal secretion; it should be given in large quantities to have an appreciable effect. By the French it has been used in many diseases, as obesity, Bright's disease, bad complexion, etc. He thought that, as a diuretic, koumis would be better. He had tested it, and found it to have a diuretic effect upon himself.

Dr. J. Davis thought the tendency of milk would be to fatten; infants, if they digest their milk, are always fat. He thought that in Bright's disease milk would be of service, tending to relieve the system of the effects of the poison, if not of the poison itself.

Dr. Mackenzie said he had seen milk recommended for diabetes and Bright's disease, but not in the other conditions named by a previous speaker. Given in the large quantities named, according to his experience, a distaste is soon acquired, and the patient rebels against such a course of treatment before any permanent good is accomplished.

Dr. Davy said milk cures obesity by relieving a diseased condition, a disordered state of nutrition; builds up the sys-

tem, and thus tends to relieve obesity, bad complexion, and the other disorders for which it has been recommended.

Dr. Walker thought the free use of milk and fresh butter a good substitute for cod-liver oil. Being much more palatable and more likely to be retained, they can be given where the oil can not be tolerated.

School Life and Disease.—Dr. J. R. Weist, in a paper recently read before the Wayne County (Ind.) Teachers' Institute, presents many interesting facts relative to school hygiene, and the diseases which have their beginning in the school room. The first disease to which attention is called, is lateral curvature of the spine. Ninety per cent. almost of this form of distortion commences during school life, the distortion corresponding to the position occupied in writing, and a very large proportion occurring in the female.

In spinal curvature, proper breathing and development of the chest are interfered with, and this favors the genesis of pulmonary consumption.

Another cause of tubercular disease found in the school room is bad air; Dr. MacCormac, of London, holds that consumption is always and exclusively the result of breathing air that has already been vitiated by respiration.

It is maintained by Dr. Clark that the educational methods pursued in our schools are, to a great extent, responsible for the neuralgias, hysterias, and other derangements of the nervous system with which our American women are so grievously afflicted.

Myopia in our schools has become very prevalent; and as the pupil advances from the lower to the higher grades, myopia increases rapidly, so that in the junior class of one of our universities fifty-three per cent. were myopic. This defect of vision arises from insufficient or ill-arranged light, or from a wrong position during work, or from too early use of books and slates, and too long continuous use of the eyes upon small or near objects.

Diseases of the brain and nervous system, as manifested by sleeplessness, headache and insanity, are also too often the result of disease originating in the school room, and the manner of their production is fully pointed out by Dr. Weist.

To CONTRIBUTORS.—Papers have been received from Dr. V. P. Gibney of New York, Dr. George Cannon of Wisconsin, Dr. A. F. Kinne of Michigan, Dr. J. W. Singleton of Kentucky, and Drs. G. P. Pratt and G. C. Smythe of Indiana, and will be published as soon as practicable—the majority of them in the next number. By the way, we may state the first of the Lectures on Surgery, by Mr. John Chiene, F. R. C. S. E., Lecturer on Surgery at the Edinburgh School of Medicine, will be in that number of the American Practitioner: our readers have a rich treat before them in these lectures.

In concluding this note, we will repeat what we have more than once said before; we are glad to have from members of the profession, whether living in the country or in the city, whether far away or near, short, practical articles, either reports of cases, or discussions especially of therapeutic subjects, questions relating to diagnosis or treatment of diseases: anything in short that may shed light upon any of the obscurities of disease, or quicken the thoughts, awaken the study, or strengthen the reflections of doctors. The American Practitioner can be made invaluable to every doctor, but it must largely depend in the future as it has in the past, upon the help of its contributors: indeed, without these kind friends, to whom the editors desire to express their grateful acknowledgements, it could not live a month.

GLOOMY THOUGHTS AND GLOOMY WEATHER.—Dull, depressing, dingy days produce disspiriting reflections and gloomy thoughts, and small wonder when we remember that the mind is not only a motive, but a receptive, organ, and that all the impressions it receives from without reach it through the media of senses which are directly dependent on the conditions of light and atmosphere for their action, and therefore

immediately influenced by the surrounding conditions. It is a common-sense inference that if the impressions from without reach the mind through imperfectly-acting organs of sense, and those impressions are in themselves set in a minor æsthetic key of color, sound, and general qualities, the mind must be what is called "moody." It is not the habit of even sensible people to make sufficient allowance for this *rationale* of dullness and subjective weakness. Some persons are more dependent on external circumstances and conditions for their energy—or the stimulus that converts potential into kinetic force—than others; but all feel the influence of the world without, and to this influence the sick and the weak are especially responsive. Hence the varying temperaments of minds changing with the weather, the outlook, and the wind. (The Lancet, Feb. 1st.)

To Subscribers—*From the Publishers.*—The last month's American Practitioner contained eighty pages, which, in the value and interest of their contents, made the issue equal to that of any monthly medical journal published at the same price in the world. While the February number has not as many additional pages, it is believed that it will also be highly appreciated by subscribers. A permanent addition of at least sixteen pages to each number, is earnestly desired by both editors and publishers; and it can and will be made if all subscriptions are promptly remitted. From its very commencement to the present the journal has relied almost exclusively upon its merits, and the kind efforts of professional friends to secure subscriptions. It is earnestly hoped that these efforts of friends will continue, and that they may be attended with such success that the American Practitioner will stand second to no medical journal in the country as to its subscription list, as it is already equal to any in the variety and value of its contents, and handsome appearance.